JANUARY - FEBRUARY 1959

New Features

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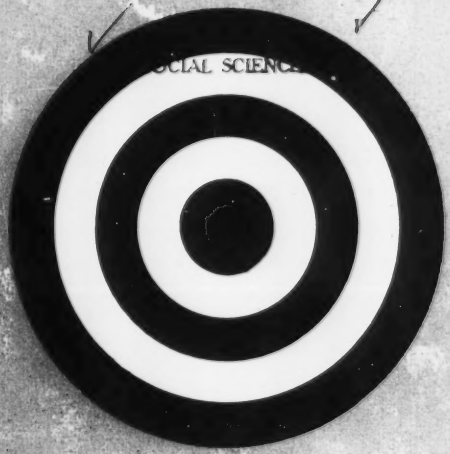

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POLICE

Journal Devoted to the Professional Interests of All Law Enforcement Personnel

In This Issue

Beddoe, H. L.—Deaths From Cutting and Stabbing

Kynell, K. S.—Role of Police in Democratic State

Chastain, J. D.—Laboratory Toxicology and the Investigator

Clift, R. D.—Objectives of Police Patrol

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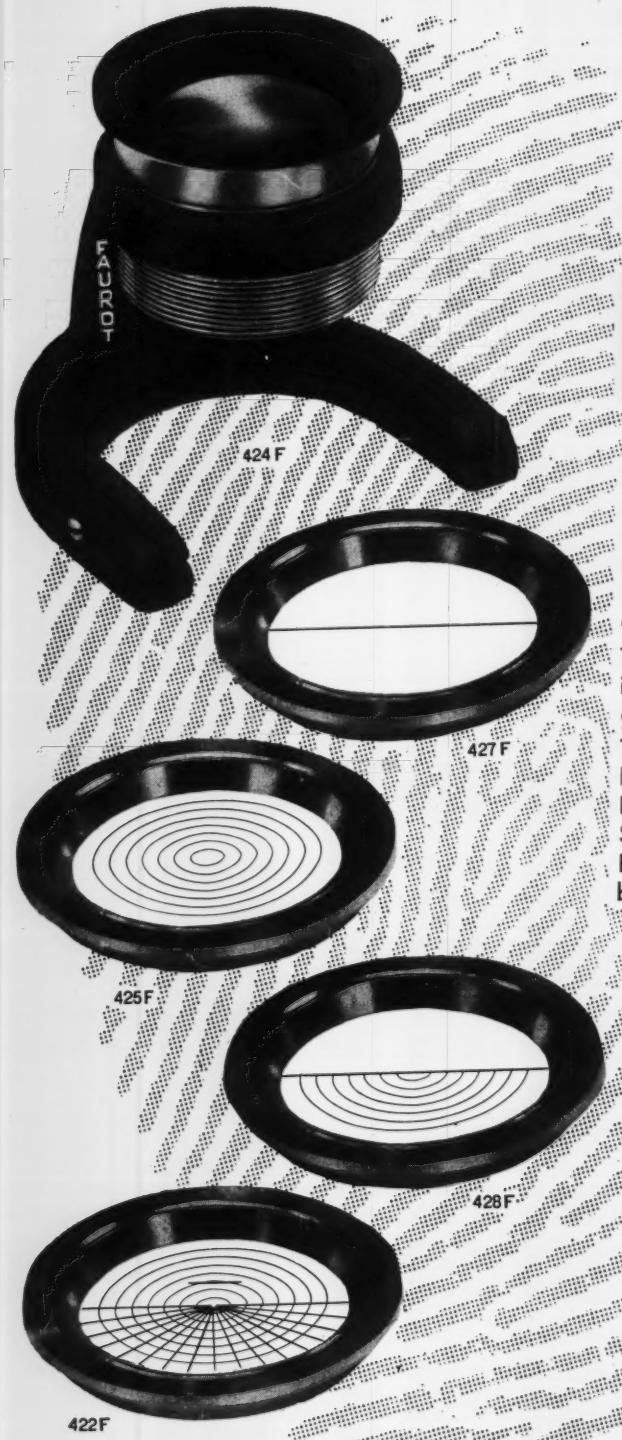

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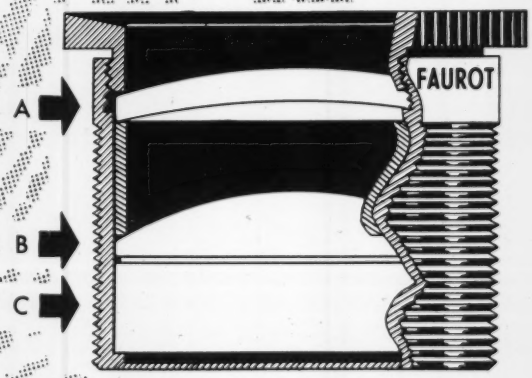

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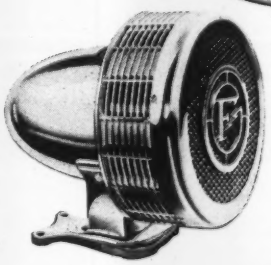

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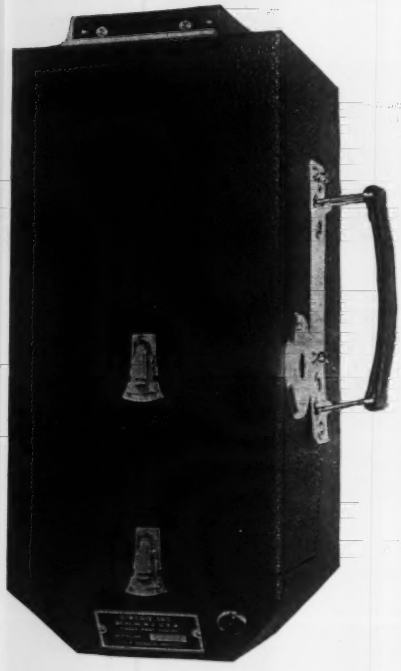

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A Journal Devoted to the Professional Interests of All Law Enforcement Personnel

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IN CASE YOU'RE TRAFFIC MINDED—For all who are interested in one of the police officer's major problems. See page 60.

POLYGRAPH AND INTERROGATION—Designed for all who are interested in scientific detection of deception. See page 64.

POLICE NOTEBOOK—Of interest to all officers interested in knowing more about their chosen field. See page 69.

STATISTICS FOR POLICE EFFICIENCY—An important subject for all modern-day police administrators and those concerned with report writing. See page 71.

NEWS AND ANNOUNCEMENTS—Containing news of current interest, new products information, announcements of openings, meetings, and other items of interest at all levels of police activity. See page 74.

POLICE is published bi-monthly by Charles C Thomas, Publisher, 301-327 E. Lawrence Avenue, Springfield, Illinois, U. S. A. Published simultaneously in the British Commonwealth of Nations by Blackwell Scientific Publications, Ltd., Oxford, England, and in Canada by the Ryerson Press, Toronto, Canada. Printed at 1201-05 Bluff Street, Fulton, Missouri. Annual subscription price: In the United States of America, U. S. Possessions, Pan-American Union, and Spain, $5.00; Canada, $5.25; other foreign countries, $5.50. Single copies $1.25 postpaid. Copyright, 1959, by Charles C Thomas, Publisher. All reproduction rights reserved. Entered as Second-Class Matter, December 7, 1956, at the post office at Fulton, Missouri, under the Act of March 3, 1879.

Second-Class postage paid at Fulton, Missouri, and additional mailing offices.

CHARLES C THOMAS · PUBLISHER · SPRINGFIELD · ILLINOIS

VOLUME 3
NUMBER 3

1959

JANUARY
FEBRUARY

Automobile Fire Investigation

By the Staff of the Western Division, National Automobile Theft Bureau, Chicago, Ill.

EDITOR'S NOTE: *This is the second in a series of four articles prepared by the staff of the Western Division of the National Automobile Theft Bureau with headquarters in Chicago, Illinois, setting forth tested methods and techniques for the successful approach to automobile fire investigation.*

THE investigation of an automobile fire is similar to the investigation of any other criminal case. There is first, proof that a crime was committed; second, evidence showing how the crime was committed; and third, evidence linking the crime with its commission by some individual.

The fact that a fire has occurred is usually easily proven. It is not always so easy to prove the fire was not of accidental origin. Before undertaking an investigation of this character, it is essential that the arson investigator have a thorough knowledge of the statutes in his particular jurisdiction in order to determine what facts must be proven to establish the commission of a particular crime. The entire investigation should be pursued with the applicable statutes in mind and evidence must be collected for the purpose of proving that some person committed the overt acts which, when taken in conjunction with other evidence, establishes both the corpus delicti and the elements needed to make up the completed crime.

Successful investigations of automobile fire losses originate from basic lines of inquiry. First, an inspection of the salvage to secure information and evidence as to the origin and possible motive for the fire; second, an investigation into the car owner's history to secure evidence indicating intent, motive and opportunity; third, the interrogation and questioning of witnesses who might have information concerning the loss, and, fourth, the cross examination of the owner to the point where you, the investigator, are convinced he is relating the true facts relative to the fire.

INSPECTION OF SALVAGE

This is a most important phase of automobile fire investigation. From a nontechnical standpoint, the burned vehicle is the "corpus delicti" of the crime of automobile arson. The solution of the crime many times results from an inspection of this unit. Utmost care and the strictest attention to detail is strongly recommended. Buyers of salvage from insurance companies who have paid high prices for what was thought to be good salvage have found upon dismantling a burned automobile that the salvage actually presented the motive for the fire. In many instances such examinations have revealed broken pistons, burned bearings and rods, cracked motor blocks, flat crankshafts and other serious mechanical failures. When this information is known to the investigator prior to the interrogation of witnesses or the owner it is invaluable. On many occasions such information is available but can be secured only by thorough inspection of the salvage.

In any event, it is essential for the investigator to eliminate the possibility or probability of an accidental fire. Therefore, successful investigations should originate with a careful and thorough inspection of the burned debris, keeping in mind the one rule which must be observed above all others, and that is absolute attention to minute details. The trained investigator sees a multitude of incriminating points as he inspects—ordinarily overlooked by the average observer. So remember to look for little things and learn to associate irregularities with their causes.

It is generally considered most practical to inspect the burned automobile before contact is made with the owner. It is of great importance that this inspection be made as soon after the fire as possible to prevent the destruction or loss of important evidence.

As a rule the general inspection should start at a point where the fire apparently originated in the vehicle. This feature usually identifies itself, in that fire or heat is most intense at the point of origin. An accidental fire spreads normally in diminishing degrees away from the point of origin in accord with the conditions: i.e., direction and velocity of winds, drafts, etc., or materials upon which flames feed, such as the upholstering, gasoline in tank, woodwork or other parts.

As inspection proceeds, look for any variation of this rule. An incendiary fire where inflammables are used is likely to show undue intensity of heat in more than one place. Note carefully the extent of the fire and the path of its progress for use later in taking owner's statement. In many cases where such action is indicated, it is wise to determine the general running condition of the car, indicating a damaged motor, faulty transmission or differential. Also look for recent removal of extra equipment, i.e., radio, heater, air horns, fog lights, etc. Notice any irregularities in the usual equipment, as old tires on a new car, tires the wrong size, bumpers missing, spare tire missing, etc. In one investigation a block of wood was found in the depression for the spare tire, indicating the owner had not been carrying a spare tire. The spare wheel was present and although a spare tire would have burned in the fire, there was no skeleton remains in the shape of fine wires, proving

CASE AT WAURIKA, OKLAHOMA. *Another instance where flammable substance was used to defraud an insurance company, which resulted in a confession through interrogation. The intense heat developed in this fire showed that accelerants were used. See additional four pictures in this article.*

the owner had no spare tire or had removed it prior to the fire.

Following a general scrutiny of the salvage, it is, as a rule, important to make a specific inspection and such an inspection can best be conducted through check by units or specific parts. The following outline is suggested:

I. The Fuel System:

1. Inspect the gas tank.

(a) Determine if filler cap was in place at the time of fire, also if gas line leading from tank was in order, or if it shows signs of tampering.

(b) Often gasoline is siphoned from the tank to start the fire and the gasoline tank cap is carelessly left off the tank.

(c) A tank cap blown off shows effects of explosion. A cap removed after the fire shows the effects of the fire.

(d) Check the drain plug in the bottom of the gas tank. If the plug is still in place look for fresh plier marks on the plug or scratches around the collar. If the drain plug is missing and the collar is still intact, the drain plug has been removed because when the plug is blown out the collar usually goes with it. The same thing usually occurs when it is melted out.

(e) If engine has an air cleaner, this acts as a flame arrester and fire caused from backfire is practically impossible.

2. Inspect the gas line.

(a) Looks for breaks in the line from the tank to the fuel pump. Look for plier marks—get explanation for any breaks or disconnections.

(b) Often the line below the tank is disconnected to obtain gasoline, and is not replaced. If it is replaced, the top will show fresh scratches and fresh grooves where it has been tightened.

3. Inspect the fuel pump.

(a) Gasoline is sometimes obtained by disconnecting the line from the fuel pump and running the starter.

(b) Check for any missing parts of the fuel pump and evidence of tampering.

(c) If fuel pump is melted there should be evidence of fire on side pans. If fuel pump was disconnected to allow the gasoline to run out and then set afire, there may be carbon deposits inside the gas line at the fuel pump.

(d) If parts of fuel pump are missing, try to establish for reference in owner's statement.

If any parts of fuel system are missing at the time of the fire and owner claims his car was running when fire started—be sure to include this report in the owner's final statement.

II. The Electrical System:

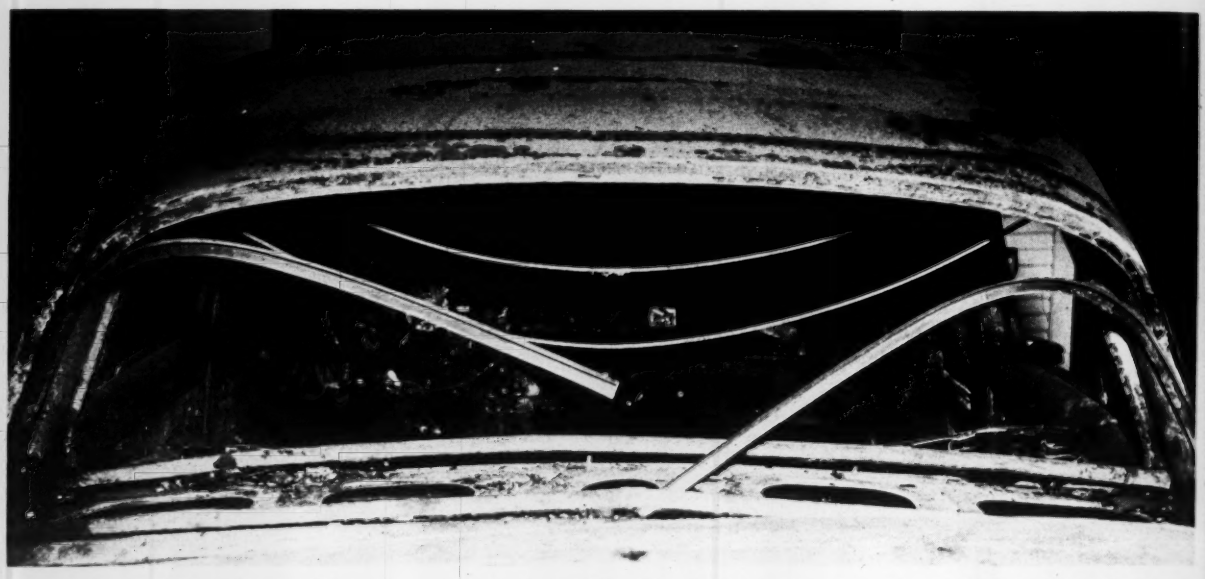
Shortage in the electric wiring is the most common excuse offered for the origin of an automobile fire. The chances of a modern automobile developing a fire from a short in the wiring sufficient to destroy it are practically negligible. Engineers have virtually eradicated this hazard through design, conduit and use of fireproof materials. Remember, you can locate evidence of a short if the wires are not melted away completely.

1. Inspect wiring in vicinity where the short is supposed to have occurred.

2. Bear in mind the small blaze that starts from a short must be close enough to inflammable substance to spread the fire.

3. A short will melt the strands of wire apart and cause small beads or knots of melted wire to form on the ends. Wires that are burned in two will be sharp pointed.

4. Check the battery. Check connections. If no battery in car, see if evidence shows it was in car before fire. Determine if there has been a metallic substance which has joined the positive and negative cables or posts.



5. A short in the wiring sufficient to cause a fire will usually exhaust the battery.

III. Motor, Radiator and Parts under and near the Hood.

1. Remember there is not much here for the flames to feed on.

2. The only possible place for an accidental fire at this location is around the fuel pump, carburetor and at the wiring. Check for cause of any other heat.

3. Any evidence of a fire on the front lower part of the motor not attributable to the above parts indicates inflammables.

4. Check motor to see if compression is good. Consider fact that serious motor trouble may have been motive for fire. Examine cylinder head and motor block for cracks.

5. Lead melted from any lower or outside seams of the radiator is definite evidence of inflammables.

6. The fan belt will not usually burn in an accidental fire.

7. When gasoline is poured on the motor, the rubber cushions for the front of the motor will sometimes show evidence of fire. This is not so in an accidental fire.

8. When gasoline is poured on a motor, it is sometimes spilled in spots on the front fenders. This causes burned blotches on the paint. Burned spots on the paint not in the direct line of fire always indicate the presence of an inflammable.

9. Check muffler, manifold and tail pipes for breaks or leaks.

10. The presence of soot indicates the use of inflammables.

11. Check water in radiator. If empty, fill with water, if radiator core burned badly on right lower corner it indicates that gas line from fuel pump to carburetor was disconnected and the starter run to pump out gasoline through the fuel pump to be set on fire.

12. In many instances the motive for an incendiary fire may not be discernible upon outward appearance of the burned debris. It is, therefore, recommended that the oil pan be removed for an inspection of the bearings, inserts, pistons, cam and crankshaft. Also remove the heads of the motor, if possible, to determine if the head or cylinder walls are cracked, particularly where water is found in the oil pan. It is suggested that the oil pan itself be checked for broken parts, babbitt metal or other foreign materials. In other instances it is desirable to have the motor rewired and started. This method will enable you to determine the running condition of the motor prior to the fire.

13. Check wheels and tires for signs of recent removal and substitution. If tires burned on wheels, strands of wire should be left. Check any remaining portion of unburned tire on the bottom of the wheel to ascertain condition of tire from appearance of the tread in all cases where the top sections of the tires have been destroyed in the fire. Checking appearance of the tread is very important in all total fires due to the fact the owner usually states he had almost new tires on the car.

14. To check differential, drive shaft and transmission, jack up rear wheel—put in all gears and turn—this will divulge breaks or other mechanical damage that might have existed prior to fire.

15. Check rear end for loose or broken axle.

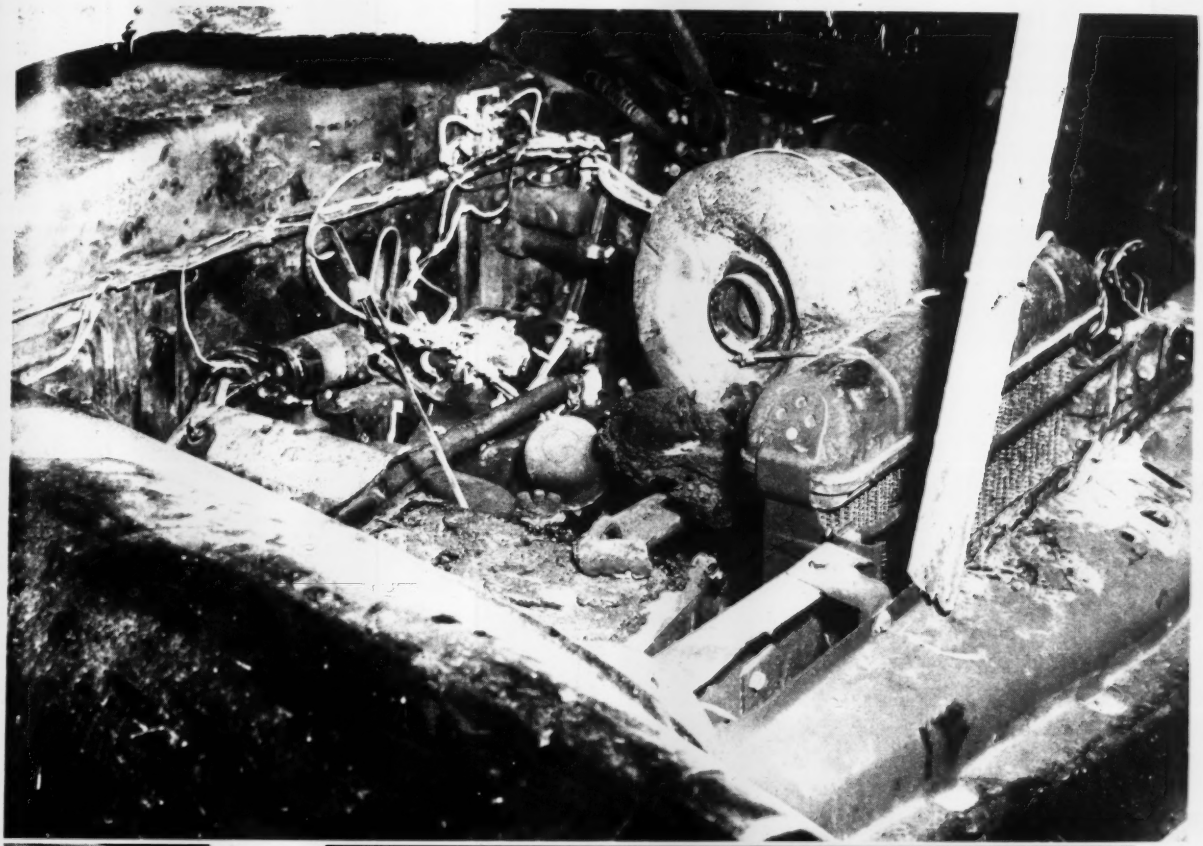
16. Check oil level and oil quality in crank case. Is there any water in the oil? If so, you may have an internal crack in the motor block.

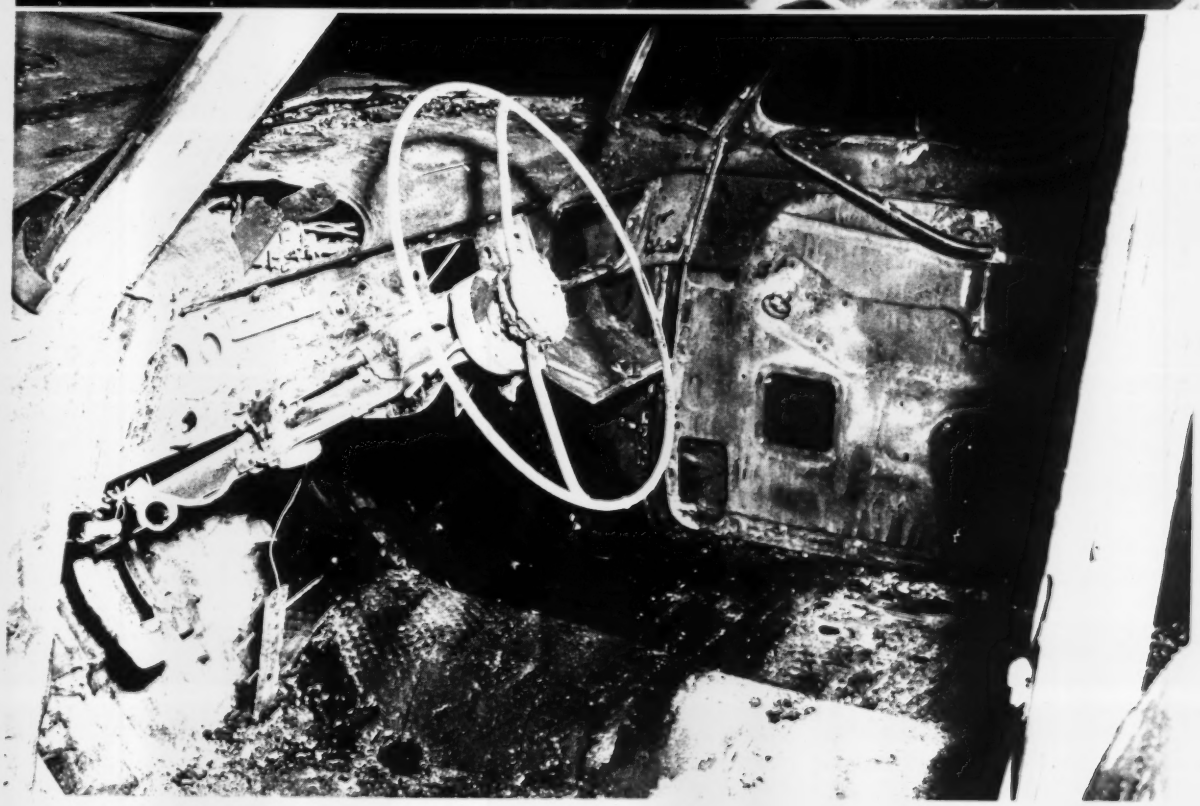
17. Check paint blisters on top of hood. This may show place where fire was greatest. Is the paint on both hood panels equally blistered?

IV. Body, Running Boards, Etc.

1. The body of the car is usually so badly burned it affords little evidence. However, a consideration of the intensity of the heat will sometimes point the way to the fact that the car was burned by use of some inflammable.

2. If an excessive amount of inflammable is used, it will run through the floor of the car and burn underside of the car. Look for this soot.





3. Check manner in which hood shows the effect of the fire. If the hood was raised during the fire the paint on the top panels may be blistered but will not be burned off where the two panels were touching each other. If the wind was blowing from the rear of the car toward the front, the paint should be burned almost the length of the hood; the radiator core will be burned but there will not have been enough fire at the rear of the car to do much damage to the gasoline tank. If the paint on the hood is burned only an inch or so from the rear towards the front, it would indicate that the wind was blowing from the front of the car toward the rear, in which case the gasoline tank may be badly damaged but the radiator will be intact.

4. Gasoline dropped on the running boards will be evidenced by heat blisters, which are not explainable from the normal progress of the fire. When dirt has been thrown on the car, presumably to put the fire out look under the dirt to see at what stage of the fire it was thrown. If sand has been thrown on car, check to see if the sand has been burned. Burned sand takes on a lighter, greyer appearance.

5. Were tools or spare tire in car—if not, why not?

6. Check underside of floorboards, if they are not destroyed, if owner says flames came through them. Many times the owner will say that he first saw the fire under the floorboards and a check will show that these have never been burned and that there is no evidence of fire on the underside of the floorboards; that it was all on top.

7. Were any unusual odors noted in your inspection of the interior of the car, indicating the use of gasoline, kerosene or similar flammable liquids? Consider the advisability of securing samples of burned or partly burned residue for the purpose of having laboratory tests made to determine the presence of accelerants.

8. If you suspect flammable liquids were used to start or encourage this fire and intend to have laboratory tests made of any residue in the automobile, be sure your selection of this evidence is properly marked so as to be admissible as evidence in a later trial.

V. What accessories are missing and why? If car was deliberately burned these will generally be removed.

VI. In those instances where defects have been found in the mechanical operation of the vehicle, it is recommended that a statement be taken from the mechanic performing this labor or that other steps be taken in your jurisdiction to secure the introduction, from a disinterested witness, of such important evidence. As indicated, such a statement from an impartial source will prove valuable in the event prosecution follows, or may serve to refute the owner's statement concerning reported condition of the car at the time of the loss.

Consider advisability of taking photographs, particularly where any suspicious items have been uncovered by salvage inspection. If photographs are taken, be sure they are taken properly so as to be admissible in evidence.

EDITOR'S NOTE: Watch for the third in this series of four articles in the next issue of POLICE. ★★★

Problems of Identifying a Body

By Harold L. Beddoe, M.D.

EDITOR'S NOTE: *Dr. Beddoe is Assistant Chief Medical Examiner for the State of Virginia. He holds the B.S. degree from the University of Tulsa, the M.D. degree from Tulane University Medical School and served his internship with the Southern Pacific General Hospital in San Francisco as well as work in residence at Hillcrest Memorial Hospital in Tulsa, Oklahoma. After service with the U. S. Army Medical Corps from January 1945 through December 1946, he engaged in the private practice of medicine until 1948. At that time, he became Police physician with the Tulsa Police Department, working primarily with the Homicide Division. He aided in establishing the first use of chemical tests for alcohol in Oklahoma and in running the analyses on the specimens. Dr. Beddoe gave evidence at the trial which established the precedent in that state for the use of such chemical tests (Toms v. State 239 P. (2d) 812). He has attended the University of Tulsa Law School and from 1951 to 1954 was a Fellow in Legal Medicine and Pathology, Medical College of Virginia.*

In 1954 he became Assistant Chief Medical Examiner for the State of Virginia, where he assists in reviewing the 7,000 or more medical examiner cases occurring annually in Virginia; investigates local medical examiner cases and performs autopsies on such cases as needed. In addition to his other responsibilities, Dr. Beddoe serves as Assistant Professor of Legal Medicine, Medical College of Virginia in Richmond. His instructional duties include supervision of training of the Fellow in Legal Medicine, assisting in teaching the senior medical class course in Legal Medicine in addition to serving as a lecturer in the State Police Training School and in the training schools of other state and local law enforcement organizations. He is a regular participant as a lecturer at the Southwestern Homicide Investigators Seminar held annually in Oklahoma and Texas since 1954 and has published a number of papers on various phases of forensic pathology and the medical examiner system. The JOURNAL *welcomes this distinguished contributor to its columns.*

POSITIVE identification of a dead body is one of the first steps in the investigation of a death subject to medico-legal inquiry. The pitfalls in this process which await to trap the unwary or inexperienced investigator will not only afford considerable embarrassment to the investigator but also lead to results both tragic and costly to society and the decedent's family.

The settlement of estates and insurance claims, marriage and inheritance problems, are but a few examples where proof of death is vital in civil court actions. The necessity for proper identification of a body in criminal cases is well known to the members of this seminar.

For convenience of discussion we may classify the remains to be identified as follows:

A. Bodies recently dead.
B. Decomposed bodies.
C. Fragments of bodies.
D. Skeletal Remains.

Address: Dr. Harold L. Beddoe, Department of Health, 404-406 North 12th Street, Richmond 19, Virginia.

BODIES RECENTLY DEAD

In case of recently dead bodies (before decomposition begins), identification is facilitated because of the greater number of descriptive features present. Nothing in the way of accessory information should be overlooked which might furnish further proof of identity.

The following outline shows some of the identification methods and examination procedures which may establish identity in a particular case:

A. *External Examination.*

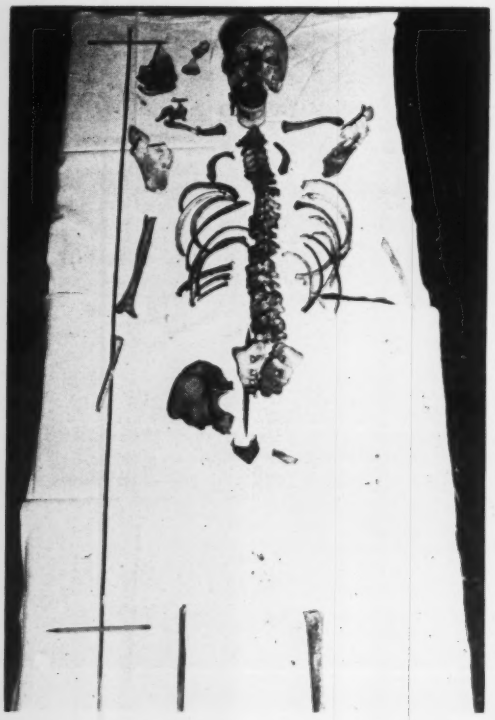
1. Visual Identification by relatives or friends.
2. Photographs.
3. Fingerprints.
4. Clothing.
5. Personal effects.
6. Age.
7. Race.
8. Sex.
9. Height.
10. Weight.
11. Body build.
12. Color of eyes (look for artificial eyes and contact lenses).
13. Color of hair.
14. Complexion of skin.
15. Skin.
    a. Birthmarks.
    b. Tumors or growths (warts, moles, corns, etc.)
    c. Surgical scars.
    d. Scars from injuries.
    e. Tattoos.
    f. Occupational markings.

B. *Internal Examination.*

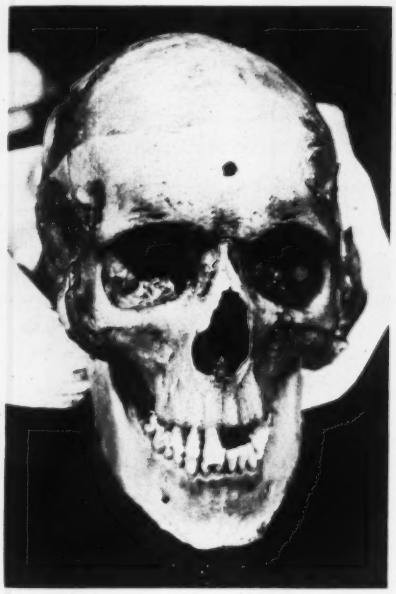
1. Position of internal organs.
    a. Hernias.
    b. Organs reversed.
2. Organs removed during surgery.
3. Diseased, disorders of function and age changes.
    a. Arteriosclerosis.
    b. Heart disease.
    c. Liver disease.
    d. Peptic ulcers.
    e. Kidney disease.
    f. Goiter.
    g. Diabetes.
    h. Syphilis.
    i. Tuberculosis.
    j. Arthritis.
    k. Menstrual cycle.

DECOMPOSED BODIES

Essentially the same examination procedure is followed on decomposed bodies as in the case of recently

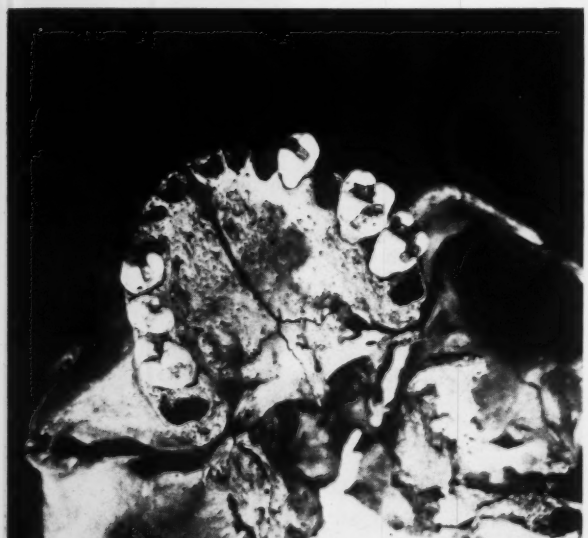


Changes produced by age, disease and trauma in the human skeleton may be of great value to investigating officials. Above: Skeletal remains found in a ravine beside railroad track.



Note bullet penetration in center of forehead. A .22 calibre bullet was found inside the skull.

Dental work may prove to be an important link in identifying a human body.



dead bodies. The extent of decomposition will determine how much information can be derived from the remains.

The bones and teeth, however, will provide certain information regardless of the state of decomposition of the soft parts.

FRAGMENTS OF BODIES

Fragmentary remains such as arms, legs, head or torso present no special problems which differ from those of recently dead or decomposed bodies. The available material to work with only limits the extent of the description of the decedent by the pathologist.

In some cases the fragments of the body will furnish all the information needed to establish the cause and manner of death and/or the identity of the dead person.

Age, race, and sex may be determined from gross and microscopic examination of the skin. Recent discoveries related to the nucleus of cells show that female nuclei have a different structure from male nuclei. If no sex organs are present in the fragments submitted, the examination of skin and other tissues may determine the sex of the decedent. The use of this method in our office during the past 2 years has been of value in certain cases in establishing the sex of human remains.

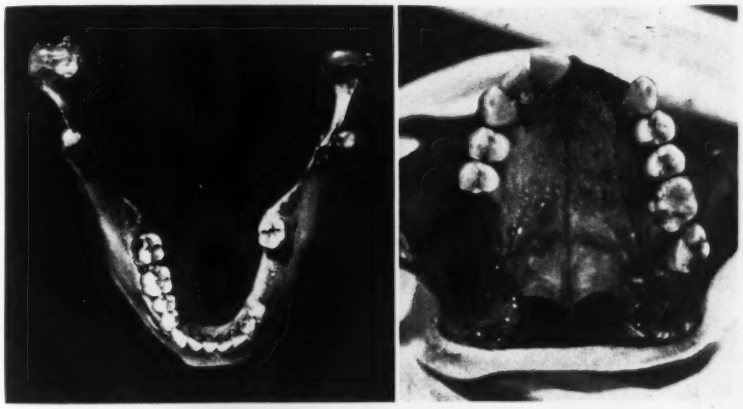
SKELETAL REMAINS

In the case of skeletal remains, the pathologist of course can rely only on the changes produced by age, disease, and trauma in the human skeleton. Here again, however, these changes may be of great value to the investigating officials when non-medical information is combined and correlated with the medical information.

The pathologist must be cautious in estimating time of

(Right) Fillings and extractions led to a positive identification by a dentist who had performed the work.

(Far right) Extractions and other dental work in upper jaw.



death from skeletal remains inasmuch as the extent of decomposition of bones will vary tremendously depending on the soil and climatic conditions at the place of burial.

POSITIVE AND PROBABLE IDENTIFICATION

The police or medical investigator must have a clear understanding of the distinction between positive and probable identifying media.

The failure to recognize or to remember this difference is probably the one greatest source of mistakes in identification cases.

There is a great temptation to rely on personal effects, description of clothing, laundry marks and visual identification by relatives or friends, but we all must admit that no single one of these can be relied on for positive identification. We will see in a moment how these may be of value, however.

No identification problem should be considered solved until the investigator has checked all possible points of comparison in a given case. Personal effects may be stolen or lost, clothing may be stolen or given away, hair may be dyed, weight may be gained or lost and features may be altered by surgery.

Only fingerprints and certain physical characteristics may be relied on alone for positive identification.

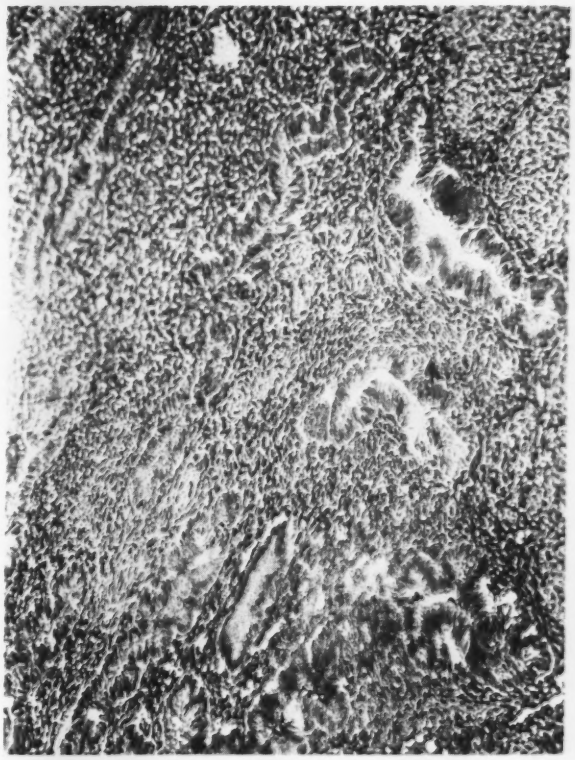
The term "identifying media" is used here to include all physical features of the remains and all articles found on or near the remains that give clues to the identity of the decedent.

A positive identification means that identifying media are present which distinguishes the decedent from all other individuals.

If only one item of identification is used there are just a few identifying media which will furnish positive identification. These media are:

1. Fingerprints.
2. Teeth.
3. Certain physical features.

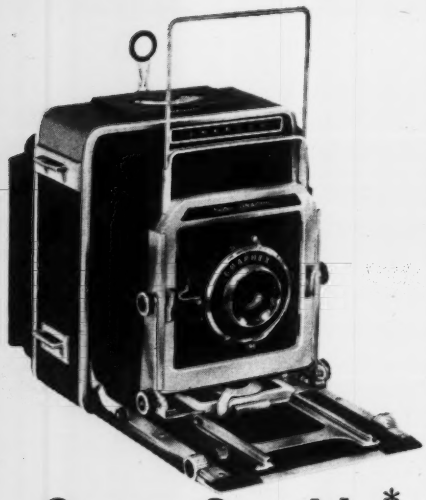
Visual identification by friends or relatives may be relied upon in some cases but such identification should never be relied upon by itself. We are not accustomed to viewing people during life in the position and circumstances they are viewed in after death, and the facial features and expression in a dead body are often strikingly different from those seen during life.



Photomicrograph of section of endometrium. Cellular detail is clear despite charred condition of remains.

Probable identifying media include all the other items given in the outline above. No single one of these is sufficient in itself to establish positive identification yet these media are probably used more than the positive identifying media.

The explanation for this, of course, lies in the cumulative value of combinations of the probable identifying media. Thus we may make a positive identification based on several probable identifying media, each of which alone would be of little value. As few as 5 or as many as 15 or more points may be needed to establish positive identification in a given case.



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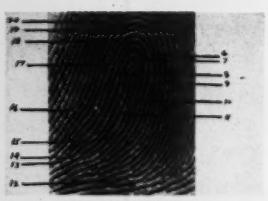

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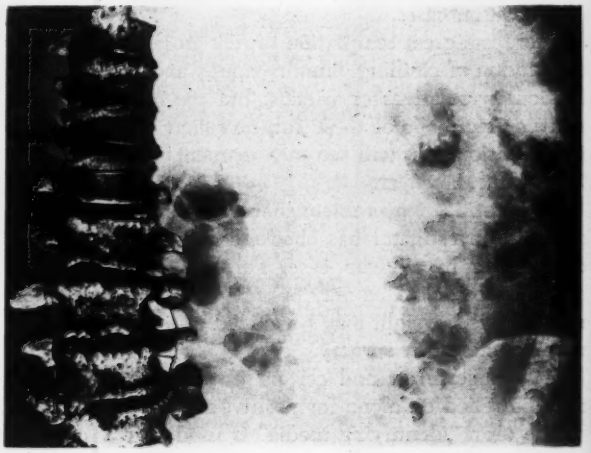
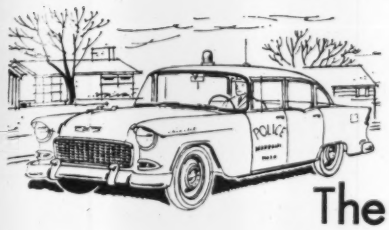
Both the police and the medical investigator must have a clear understanding of the distinction between positive and probable identifying media. Above: charred remains found in the ruins of a burned cabin.



Composite photograph of vertebrae and x-ray. Note arthritic changes in vertebrae which are identical with the bony changes seen in the x-ray.

The final point I want to emphasize is probably the most important one in any identification problem. The work of the medical examiner or pathologist in providing a detailed description of the remains is of absolutely no value unless the police investigators provide equally detailed descriptions of missing persons.

In other words, this type of medico-legal problem is an excellent example of the necessity of complete cooperation between the police and medical investigators. Neither of them can retire to the sideline and let the other do the burden of the work because the identifying media that each produces during his investigation must match perfectly with the other to establish a positive identification. ★★★



The One-Man Patrol Car—
Approaching A Stopped Automobile

By Richard T. Runyan, Chief of Police and F. Samuel Ostertag, Assistant City Manager

EDITOR'S NOTE: *This is the fourth in a series of eleven articles appearing in consecutive issues of POLICE dealing with the techniques of* ONE-MAN PATROL CAR OPERATION. *They are based upon a series of training bulletins developed by the Police Department of Corpus Christi, Texas, implementing its conversion to the one-man partol car system. The first article appeared in the May-June issue of the* JOURNAL.

Training Bulletin No. 4

FORESEEING HAZARDS

AN unknown factor, and therefore an element of immediate danger, enters when the officer prepares to face the human being in command of the car he has just stopped. Caution is important. The occupant of the car may be a careless businessman, who has unwittingly committed an offense; a belligerent drinker, who might not act rationally; or a yegg, who has violated a traffic regulation while hurrying from the scene of a felony.

Hazards are the greatest in the moments when the patrolman is parking his own vehicle behind the violator and preparing to approach the violator. At this time, the officer's attention is divided between parking his car, watching for danger from other street traffic, sizing up the violator, and guarding against any unexpected act on the part of the violator.

PARKING THE POLICE CAR

After a violator has been directed to halt and has indicated that he has recognized the order and is prepared to stop in the selected parking space, the officer should slow his vehicle and stay behind the violator's vehicle. The officer's vehicle is something more than a method of transportation. Properly used, it can serve as a protection from the flow of traffic and as protection from unexpected actions on the part of the person who has been stopped. The officer who is assured he need not worry about traffic hazards is free to concentrate on the vehicle he is approaching and upon its occupants.

The position of the police car is important. The police car should be stopped between eight and fifteen feet behind the other vehicle, with the left side of the police car extending two or three feet to the left of the violator's vehicle. In this position, the officer can see straight ahead past the other car and is in a good position to observe the movements of the other car's occupants. At the same time, he is protected from traffic, both while approaching the vehicle and while talking to its occupants.

The dispatcher should be notified, and the patrolman should await acknowledgement of that notification before he leaves his car. This period, after stopping the violator and before approaching his car, has proved to be the one for reporting to the dispatcher for several reasons. Radio transmission can be very difficult to accomplish while driving in heavy traffic; the radio report made before the violator is stopped may prolong the time that elapses between the spotting of a violation and stopping its perpetrator. Departmental policy requires that a traffic violator be stopped as near the scene of the violation as is practical. Therefore, communications contact should not be made until after the actual stop has been accomplished.

A stolen and missing vehicle check should be made, by radio, once a violator is stopped. In addition to aiding in the recovery of missing vehicles, the officer thus records the violator's car license before approaching the vehicle. The officer's use of his radio, if observed by the person stopped, will have a desirable psychological effect.

FOOT APPROACH TO VIOLATOR'S CAR

When the police car is parked in the offset position, the red light on the rear of the car must be illuminated (day or night) to warn approaching motorists. The officer should remove his keys from the ignition switch, leave his car, and approach the violator's car from the left rear.

Approaching the violator's car, the officer's eyes should never leave the occupants of that car and he should be alert for any quick or furtive movements by the violator and should pay particular attention to any attempts to discard possible evidence. Approaching along the driver's side of the violator's car, the officer should glance through the rear windows of the car and be certain of

Address: Chief Richard T. Runyan, Police Department, Corpus Christi, Texas.

Patrolman J. R. Trammell demonstrates proper procedure in writing license number down of stopped vehicle, to be left in driver's seat, as well as notifying the dispatcher of license number of stopped vehicle and location.

the number of occupants in the car. At the same time, he can satisfy himself that the vehicle contains no contraband or other material to arouse suspicion. It is wise to keep the gun hand free by carrying citation book or flashlight in the other hand.

Seeing all the occupants in a car is particularly important when both the front and rear seats of the violator's car are occupied. The officer must not turn his back on any occupant of the car while issuing a citation. A position slightly to the rear of the driver is ideal for the officer because the driver is thus kept at a disadvantage and must turn around to see the officer, who can himself observe the entire interior of the car easily. At the discretion of the officer, a driver may be ordered to leave his vehicle and go to the rear of his car while being cited or warned.

Patrolman J. G. Pringle demonstrates proper procedure on alighting from vehicle by removing vehicle keys.

In upper photo, Patrolman J. G. Pringle demonstrates procedure for stopping violator.

In lower photo, Patrolman W. H. Lee illustrates writing traffic ticket to offender, standing on sidewalk for safety, after offender alighted from vehicle.

ORDERING THE VIOLATOR FROM HIS AUTOMOBILE

If the officer requests that the driver leave his vehicle, the officer should open the door for the driver to allow the driver to keep his hands in sight. A right handed officer should use his left hand to open the violator's left front car door and should then move backward with the swing of the door. The officer will thus be able to check oncoming traffic and still keep a careful watch on the violator. The violator then moves to the rear of his car with the officer following. The officer has the advantage of being able to see the violator's hands at all times and of being behind the violator. Protection from offensive action by the violator is provided by the car door.

The patrolman should direct the driver, who has been assisted from his car, to stand on the curb or sidewalk at the rear of his car. The driver must be protected from oncoming traffic, and should not be ordered to stand in the street.

THE OFFICER MUST, AT ALL TIMES, PROTECT HIMSELF AGAINST UNEXPECTED ACTIONS. HE MUST ALSO BEWARE OF THE DANGERS OF TRAFFIC WHEN STOPPING A TRAFFIC VIOLATOR. Watch for Training Bulletin No. 5, ONE-MAN PATROL CAR—OVERTAKING AND STOPPING FELONY SUSPECTS, in next issue of POLICE. ★★★

Why It Is Necessary That State, Municipal, and Local Police Be Well-Trained

By Colonel Elmer F. Munshower

EDITOR'S NOTE: *Colonel Munshower has spent practically all of his productive life either in public service or in Military Service. He saw Military Service during World War I and then as a public servant in 1925, he was Alderman at Frederick, Maryland, for six years and then became Mayor of that community in 1931. After serving as Superintendent of the Maryland State Police from 1937-1939 he became Chief of the Baltimore County Police in 1939. With the advent of a national emergency, he returned to Military Service in 1941 and subsequently retired with the rank as Post Commander—AP Hill—1945.*

Colonel Munshower was appointed Superintendent of the Maryland State Reformatory for Males on June 1, 1945, resigning this position on January 1, 1947. He was appointed as Superintendent of the Maryland State Police in 1951 and was re-appointed in 1955. His long command experience in Military Service has no doubt played an important role in the splendid reputation enjoyed today by the Maryland State Police.

ALTHOUGH the basic principles of police work have remained unchanged since the establishment of this form of public service, we have long since passed from the era of Sir Robert Peel. It is true that the comparatively simple problems faced by the first Bobbies remain with us; they will remain as long as there is civilization, as long as any person infringes upon the human rights of another. But, especially in the past half-century, the increase in both urban and rural population, the technical advances in science which are available to the criminal and law-abiding alike, and the motorization and mobility of modern living have continually extended the scope of the policeman. As his burden has increased, however, so have his knowledge and the facilities to cope with all problems in the preservation of the peace.

The uniform, badge, and gun are the symbols of a policeman's authority; they are also the symbols of his duties and responsibilities. A century ago a policeman was presented with these symbols and went about his duties aided only by his personal integrity and conscientious attitude about learning as he went along. Perhaps this was adequate training a century ago and it may have remained adequate for a time; but such a system in the mid-twentieth century would be disastrous to the policeman, to his department, and to the public he has sworn to protect.

Address: Col. Elmer F. Munshower, Superintendent, Maryland State Police, Pikesville, Maryland.

Any training is the process of leading or directing an individual toward increasing his proficiency in general knowledge or in any specific field of endeavor. Few men have the inherent ability or interest to achieve knowledge, particularly technical knowledge, through their own efforts alone. And while it is true that knowledge alone does not insure competence and that experience can sometimes surpass formal training, the basic advantages of and need for the dual training-experience force is apparent. Professionalization in any career, be it medicine, law, stenography or police work, demands both.

The die-hards who maintain that experience alone is the best teacher are gradually disappearing, and the need for some type of police training has become an accepted fact. Many of the aspects of police training have been graphically presented at one time or another and the most important details have received emphasis, but we feel that too much stress cannot be placed on this vital phase in the functioning of a well-organized police department.

The amount and content of training must be geared to the individual police department and what is expected of its members. Obviously, basic police duties and procedures would apply in all cases because the primary duties of any police officer are the same, but training coverage would increase in relation to the department's scope of authority. State police departments, for instance, must have more extensive training than a small municipal department with limited jurisdiction and duties. Larger organizations are not more in need of training, they simply need greater, more comprehensive training.

Each of the types of training required by a policeman —basic, in-service, technical, supervisory and self-training—will be discussed in detail.

The basic training required for a physician, lawyer or stenographer is generally the same throughout the country. There seems to be little, if any, standardization in training for a police career. Training in organizations of comparable jurisdiction varies from a few weeks to several months, but even six months is a relatively short time to train a man for his life's work.

Every police training school or academy should be established on the principle of teaching its students to

mentally and physically out-think and out-maneuver the criminal, as well as how to best protect the lives, rights, and property of our citizens.

From the outset, a student policeman must be made to understand his mission exactly; he must be made to understand the objectives and duties of police work; he must be made to understand the distinct obligation and responsibilities he has to the public. These basic purposes of police duty must be emphasized continually throughout the training period. If he complete his training unaware of this and unwilling to maintain integrity, all of the technical skills he might have mastered will be, in general effect, valueless. Constant supervision, firmness, and discipline are essential. The feeling of being a part of the organization can be had only through intelligent and understanding personal contact.

As we said, there is considerable specialization and variation in police work, but in all instances there are certain fundamentals which require positive training. Every policeman should know about arrest procedures, patrols, first aid, evidence, basic investigative techniques, the criminal, motor vehicle laws and other ordinances, courtesy, court procedures, use and care of firearms, as well as the regulations, policies, and procedures of his department. There are many other fundamentals, of course, too numerous to mention here, and the police trainees should be given a working knowledge of all of them. They should not be eliminated from any basic police training curriculum nor should they be briefed to the point where the student is getting the information in a too-condensed form.

It is evident that time will always be an important factor in the establishment of a training schedule. And it might, in some instances, be impossible to cover more than essentials. If time permits, the other related duties should be covered. This would include fingerprints, accident investigation, radar, typing, homicide investigation (if these subjects are part of the normal, continuing function of the department, they would receive extended coverage as outlined above). Every policeman, however, should be made aware of just what these subjects cover and where to seek more detailed information should he need it.

The curriculum must encompass a well-balanced schedule of mental and physical instruction, with the classroom work and demonstration staggered to eliminate fatigue of the student. In Maryland, for instance, our basic training program covers a six-month period; and with the exception of weekends, there is a steady schedule from 6:30 a.m. to 9 p.m. daily. During the course each student takes notes during the lectures and compiles his own permanent notebook. Very little mimeographed or printed material is distributed to the students and this prepared material includes such things as forms, location and facilities of state and national parks, or manuals of a very detailed or technical nature. Each student's notebook is reviewed by the instructors and the student is required to correct any errors, assuring him a lasting, correct reference to his basic police training. Written tests are given several times a week and any student not maintaining passing grades is released from the academy. Competitive sports are held weekly to sharpen the team-play consciousness of the individual and give him greater ability to respond to changing situations.

The knowledge a policeman needs is not handed to him all packaged and neatly wrapped in cellophane—it takes time and hard work and there are no short-cut methods. Both the success of the individual policeman and that of his department depends on the proper foundation he gets in training.

We often regard a police school as merely the place where the rookie will become indoctrinated in law, arrest procedure, and the many other law enforcement problems completely alien to him. While this aspect of training is necessary in the formation of a competent policeman, he could get a great deal of the material from a correspondence course or from any set of books outlining police procedures. Nothing, even in basic training, can be learned completely from books. An individual may be well-read on these subjects and he may pick up some "know-how" from experience, but he will still be an amateur. For in almost every professional thing he does, some other living, competent person has had to teach him, show him how to do it. There are few

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ways more satisfactory in learning than through demonstration plus competent explanations of the material covered.

One does not have to be an expert to imagine the serious consequences if a student were given a written manual on how to drive a police car at high speeds and sent out to patrol alone. He could hardly be expected to preserve his own life, much less safeguard the lives of others.

This is one of the major reasons for formal training versus the obsolete practice of learning solely through association with older police officers. Police instructors should be selected not only for their thorough knowledge of a given subject, but also for their ability to impart this knowledge to others. The way a young recruit is taught will have a great bearing on the type of policeman he will become.

Training also serves as a very effective screening process from the standpoint of both the individual and the department. For the past few decades policing has been fictionalized almost beyond recognition and basic training gives the recruit a first-hand, face-to-face contact with the reality of policing. Most of them who do not like this type work or who for any reason feel it would be unwise for them to continue can drop out before they reach the point where it becomes increasingly difficult to turn back.

The screening advantages to the department are more vital. Under the strict scrutiny of trained instructors, under forced group and team activity, those unqualified to be policemen can be released before they have a chance to be involved in situations which might prove disastrous to themselves and to the department. At the very least, the training period will shed light on many factors of a recruit's behavior or ability which can be used as a guide by his supervisors when he receives his permanent assignment.

After his graduation from the basic course, the average policeman's group training will be finished except for in-service or other specialized training. His self-training, however, should continue as long as he is a policeman. No policeman ever learns all there is to be learned about police work. In addition to his new-found knowledge, the policeman must realize none of his objectives will be met unless he displays foresight, common sense, and a lot of hard work.

The department can play a positive role in this by continually encouraging its men to improve themselves in every way possible.

Knowledge never remains static and this is as true in police work as in everything else. Advanced methods for better policing are being constantly formulated, and for this reason there should be periodic re-training of employees. With the revision of the basic training curriculum to meet these constant changes, new men are often better informed on certain phases of policing than men with several years experience. Whether the method of training be small-group instruction by supervisors or through formal sessions at the training school, in-service training of some type should be available to all policemen.

This is also true of specialized and advanced training although, of necessity, it cannot always be given on a departmental level. Small departments and even many larger ones, have neither the funds nor the facilities for such training. Any such training that can be handled by the department, however, should be done so when possible.

There are numerous police training schools on the national level whose facilities are available to police agencies throughout the country—Northwestern University Traffic Institute, Harvard's School of Legal Medicine, and the FBI National Police Academy, to mention a few. Many are cost-free, many offer scholarships, many charge only a nominal tuition. The advantages of this type of training are manifold. First, it insures high quality technical training which will benefit the policeman and his department and in turn increase the organization's over-all effectiveness; the opportunity to attend such a course encourages the policeman to keep on his toes at all times in order to warrant his selection; and finally, as public relations, it greatly aids the development of a cooperative attitude among police departments.

As we mentioned earlier, the training of recruits in formal classes versus teaming with a seasoned officer insures a standardization of policies, methods, and procedures; but individual interpretation cannot, by reason of human nature, be entirely eliminated. It can, however, be reduced to a minimum. Seeing that these standardized procedures are adhered to rests with the supervisors and any policeman rising to a command rank needs training in supervisory principles. He might be a good policeman with excellent potentials, but he does not automatically become a good supervisor. Although supervisory practices must, of necessity, have a degree of flexibility, there are certain points on which there should be no variation. The instinct for good leadership must be developed by training and experience. There is no adequate substitute for either. Management expends a great deal in both funds and time for supervisor training and consider both well spent; and in few careers is good supervisor-employee relations so vital as in police work where badly formed attitudes can extend to the general public with far-reaching results.

Success is seldom accidental and every person, regardless of his career, is daily faced with learning about something. When a policeman does not take advantage of every opportunity offered him, he fails himself, his department, and the citizens for whom he works. The department which can adequately train its men and does not do so, also fails in its duty and responsibility. ★★★

Definition to remember

LUCK: When preparation meets opportunity.

Alcohol Education

By Association of Casualty & Surety Companies

EDITOR'S NOTE: *It is held that the public school system through its teaching structure and program of instruction can become a potent force in educating the youth of the nation to the damaging results that follow in the wake of alcohol consumption. Based upon this premise and the role of alcohol in traffic deaths and injury, the Association of Casualty and Surety Companies recently made available the results of a survey to determine what the schools of the nation are teaching on alcohol as deterrents to its use. The results of this survey which follow, are of important significance to the law enforcement field, and to the educators and legislators of this country.*

ALCOHOL IS AN AGE OLD PROBLEM

SINCE prehistoric man first tested fermented juices which had sufficient alcohol content to cause pseudo sensation, controlling the misuse of alcoholic beverages has been a major problem to society. The consumption of alcoholic beverages was a problem to tribes, clans and families of ancient people; but often had an important role in social life and religious ceremonies. Biblical histories speak of man's tendencies toward "strong drink" thousands of years before the art of distilling alcohol was first known. However, its acceptance, rejection, misuse and control has varied with time and place, as has many other controversial, social and religious customs.

ALCOHOL PRESENTS NEW PROBLEMS TO A NEW ERA

In colonial times, man's labors were often limited to simple tools and machines with few people involved. As a farmer, woodsman or coachman, his unsafe acts resulting from intoxication often endangered but few people. In contrast, in our mechanized and motorized era, the lives of hundreds of people often depend on the safe and sober acts of one person at the throttle, the wheel or the control tower. For this reason, the danger from intoxication has increased in proportion to our technological progress. Despite past efforts of educational, religious and governmental agencies, the evil effect of alcohol is frequently considered to be among society's greatest social and economic problems.

Statistics for 1955 show that 60,000,000 of our population imbibe, that 30,000,000 are habitual drinkers and that 3,000,000 are alcoholics.

During 1955, Americans spent $8,000,000,000 for alcoholic beverages, which is about the same as that spent for formal public education. That same year, seven commercial brewers in America spent $3,000,000 for advertising. Alcohol is considered a leading causative factor in impairing marital relations, divorce, broken homes, poverty and despair.

THE INFLUENCE OF ALCOHOL ON TRAFFIC SAFETY

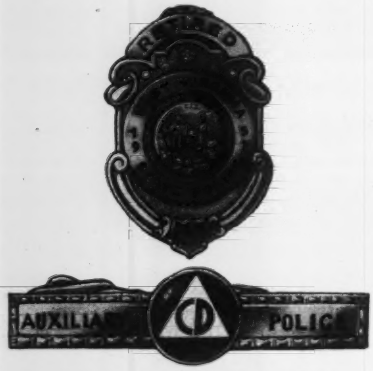
Traffic safety officials and laymen alike, agree that the intake of alcoholic beverages makes the good driver bad and the bad driver even worse. According to a recent special report to the Association of Casualty and Surety Companies by state traffic safety officials, a known total of 5,158 fatal accidents occurred during 1955 in 45 states and the District of Columbia involving one or more drinking drivers. This survey also revealed that, in 44 states and the District of Columbia, a drinking driver was involved in at least 130,143 reported traffic accidents of all types. These nationwide totals are undoubtedly extremely conservative, as reported percentages of fatal accidents involving drinking drivers varied in different states from one to 50 per cent. The records of those states reporting up to 50 per cent of the fatal accidents involving drinking drivers—a figure substantiated by independent investigations—more accurately indicate the true extent of the problem. While these figures are shocking in themselves, it is obvious that they do not show the actual extent of driving under the influence of alcoholic liquors—but reveal only *some* of the drivers who were found by police to have been drinking.

While most people have been exposed to facts concerning the effect of alcohol on one's ability to operate a motor vehicle, the total of 142,906 convictions reported during 1955 in 41 states and the District of Columbia (plus the untold number of guilty drivers not detected, reported or convicted) tells us that this vital message has gone unheeded. On a nationwide basis, our traffic safety education and enforcement programs have failed to prevent the drinking driver from getting behind-the-wheel. (The complete findings of this special report by state traffic safety officials were published by the Association of Casualty and Surety Companies as Technical Traffic Topics No. 3, May 1957, under the title, "The Influence of Alcohol on Traffic Safety." Copies are available upon request.)

As a result of these alarming statistics, the Association of Casualty and Surety Companies became further interested in determining what the schools of the nation are teaching on alcohol as deterrents to the ill effect of its misuse. As an approach to this problem, all state departments of public education were asked to submit complete information on the educational approach to the alcohol problem in their public schools.

Address: Association of Casualty and Surety Companies, 60 John Street, New York 38, New York.

BADGES
of authority



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After collecting and reviewing the correspondence and literature submitted by 37 states and the District of Columbia, this report is presented as a source of information to others who may be interested in alcohol education programs.

STATE LAWS ON ALCOHOL EDUCATION

All states reporting in this special survey indicated that they have laws requiring that public schools provide instruction on alcohol. State laws differ as to grade levels in which instruction shall be provided, as well as in wording and philosophy of instruction method and purpose. Certain states require that such instruction be provided by all schools supported by public funds. Others require that it be provided in grades one through 12, while still other states specify such instruction in grades four through 12.

It is interesting to note, that the earlier laws gave primary concern to the physiological effects of alcohol on certain organs and tissues of the human body, with little or no mention of emotional and psychological effects. The more recently enacted and amended laws place greater stress on the psychological effects as they determine human behavior, as well as its relation to such public problems as traffic safety, law enforcement and obedience to those accepted laws for home and society.

One law, Section 8274 of the California Education Code, specifically prohibits propaganda of all kinds. It requires the teaching of known scientific knowledge regarding alcohol effects, deleting reference to its controversial moral issues—to drink or not to drink. This philosophy involved is in agreement with that of Peter Abelard, the noted French educator and philosopher of the 12th century, who advocated that all controversial subjects should be presented in a purely unbiased, scientific way, that both the pros and cons should be presented as accurately as known, and that decisions as to the moral right and wrong should be left to the student.

HOW STATE PROGRAMS AND MATERIALS ARE DEVELOPED

There is probably no other single social problem on which more literature has been written. In fact, a review of the literature on this subject is most impressive and represents the writing of many of the greatest thinkers of history. However, as many authoritative educators on the subject have pointed out, much has been written in propaganda form with unscientific, biased, religious, political or commercial slants which have not been acceptable to modern educational philosophy on methods of instruction.

The instructional literature on alcohol education currently being used in state public school programs, as judged by samples submitted in the survey, can be classified under one of four types.

1. General courses of study for elementary or secondary grades, or both, with special units outlining principles and objectives of alcohol education to be taught as an integrated part of subject areas such as science, health, social studies or driver education.

2. Teaching guides on alcohol education, outlining teaching objectives for different grade levels to be integrated with related subjects.

3. Special handbooks or conference reports on alcohol education, developed by special committees of professional and lay groups, giving consideration to the total alcohol problem.

4. Books, bulletins and pamphlets developed and published for school use by the national organizations that specialize in study and research on the alcohol problem.

The following is typical of how many state programs on alcohol education originated, were implemented in the school curriculum and are now organized, directed and supervised.

Legislation is first enacted requiring that such instruction be provided at certain grade levels. The law in most instances empowers the chief state school official to determine the proper instruction to be provided. This responsibility is generally referred to the State Department of Public Instruction or its equivalent, which in turn assigns it to a designated committee composed of teachers and supervisors of special teaching areas and usually includes members representing those organizations devoted to the alcohol problem, as well as representatives from civic and lay groups. Such committees meet periodically throughout the school year or in special workshops to prepare courses of study, teacher guides and other supplemental teaching materials to be used in school programs.

Most all materials developed are designed to become an integral part of the instructional program. A special textbook on this subject or a special course on alcohol education, as such, has not been reported. The amount, kind and quality of instruction provided on alcohol education is usually left to the "whims" of the teacher of the parent course. ★★★

The Role of the Police in a Democratic State

By Kermit S. Kynell

EDITOR'S NOTE: *Mr. Kynell is a naval veteran of World War II and a graduate of Stanford University with the A.B. and M.A. degrees in political science. He has taught at Temple City High School and East Los Angeles Jr. College prior to joining the police science faculty at Long Beach State College where he is currently instructing classes part time in Criminal Evidence.*

Since 1953 the author has been a member of the Los Angeles County Sheriff's Department, working custody, radio car patrol, and as an instructor at the Sheriff's Academy before his present assignment on the License Detail of the Headquarters Detective Bureau. He plans to complete the requirements for the Ph.D. degree at U.C.L.A., with special research in political theory involving police problems, utilizing in part material gathered during observation of continental police organization in Germany and Denmark.

WEBSTER defines police as the department of government charged with enforcing law and order, but the term has been more technically defined as the administrative machinery of government charged with the preservation of public order and tranquillity including crime prevention and detection, and the promotion of public health, safety, and morals.[1] Any organization endowed with such responsibility faces a most difficult task even under ideal conditions of a cooperative body politic. But what about fulfillment of these obligations under conditions of adversity? To what extent are police problems magnified in a milieu of social hostility?

It is no secret that uniformed police in the United States have traditionally not been particularly highly regarded by the laymen. The popular misconceptions fostered through countless motion pictures, comic books, mediocre fiction, and radio have apparently created a stereotype of the "cop" in the minds of millions. He is usually only a first or second generation American, replete with enormous biceps, a one inch forehead, and of course flat feet. He speaks in cliches, and is not adverse to accepting "side money." To this extent mass media communications have done the police profession a disservice, emphasizing attributes which are untrue in their inception. The extent of the damage becomes evident in the transition behavior of many children. During grade school years they adore the policeman and seek to emulate him. Ask any radio car officer how often groups of small children wave to him in passing. The teens for some children, however, seem to effect a gradual change from friendliness to aversion to downright hostility, until it ultimately becomes fashionable to indulge in the "hate cops" routine. The mass media indicated seem to have nourished this attitude, although television appears the notable exception with its increasing number of programs depicting the police as intelligent, dedicated public servants.

The reasons for this social phenomenon run far deeper than mere stereotypes. Perhaps closer examination will reveal them. Since colonial times Americans have manifested a deep-rooted aversion toward authoritarianism, and this has cropped out on countless occasions in our history. Distrust of rank and authority seemed almost a new world heritage. Benjamin Franklin wore homespun, eschewing the breeches and powdered wigs of his contemporaries, while Andrew Jackson implied that those with authority were not to be trusted for any great length of time.[2] Until the Civil War era the title of Admiral, for example, was not used in the U.S. Navy; the instances are manifold. They point to that subjective distrust of authority per se which seems a tenet of the elusive American national character. This feeling of aversion to authority crystallizes against uniformed police, for they represent the prevalent, obvious symbols of authority and appear to be the whipping boys of a basic national sentiment.

To be sure, this grass roots individualism of our culture is all to the good when manifesting itself as a nation of free thinking, self-asserting citizens, but is it entirely realistic in its application to police authority? Even individuals of good standing in the community sometimes become petulant when confronted with the symbology of the badge. But could it be that police authority makes possible that very indulgence of "rugged individualism" by the citizens in the first place?

No less eminent a political philosopher than Thomas Hobbes summarized the life of man as "solitary, poor, nasty, brutish, and short,"[3] and put together an all too convincing case for the proposition that society, indeed civilization itself, exists only by virtue of some authority to which people subscribe. With it there is liberty, however limited; without it there is chaos which is no liberty at all. Hobbes wrote in 1651, but his treatise seems decidedly akin to our "liberty under the law" concept.

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[1] State v. Hine, 59 Conn. 50, 14 NE 820.

Address: Kermit S. Kynell, 13525½ Curtis & King Road, Norwalk, California.

[2] First message to Congress, December 8, 1829.

[3] *Leviathan, or The Matter, Forme and Power of a Commonwealth*, Oxford, 1952, *Passim*.

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In more recent times the ill fated Boston Police strike pointed to the unfeasibility of metropolitan living in the absence of regulatory authority. The old sociological bromide arises: do individuals obey the law due to a positive desire for compliance, or for fear of retribution should they break it? Hobbes favors the latter interpretation. One might query that despite reams of statutes and optimistic aphorisms, where is the retribution except in that relatively small group of uniformed police officers who represent it in practice?

Another side of the issue is presented by a contemporary thinker of note who asserts the opposite philosophy in stating that people don't necessarily obey law because of fear of punitive reprisal. In other words, "pure principles of right and justice have objective reality and are capable of being followed."[4] Yet a third or predominately neutral view with respect toward the need for authority was adopted by Rousseau who stated in his famous theory of the Social Contract that since "no man has a natural authority over his fellows . . . the only legitimate authority is agreement."[5] This reasoning, however seemly, is also contending the prevalence of unanimous concord among men, an assumption which history has not borne out.

The theories of a more rustic age are perhaps quite inapplicable to the modern pressures of metropolitan culture wherein the millions still insist upon their individual rights often with blithe forgetfulness of individual duties. These two concepts, rights and duties, form the equally important balances of the democratic scale; and should the latter succumb, the former must follow. To coin the obvious question yet again: who watches over this balance? Who in the final analysis prevents A's failure in his duties from compromising B's rights if not the police? Perhaps it begs the issue to prove the crucial importance of law enforcement agencies in a democratic state by implying the consequences of their absence, but there may be some merit involved nonetheless.

In a high school where I formerly taught I assigned my eleventh grade American history students the composition of essays describing conditions in the City of Los Angeles assuming that metropolis had been publicly deprived of police protection for forty-eight hours. Prior to the assignment, of course, we had completed a unit of study involving county and municipal government, and had discussed the duties of various public bodies involved. The results were startling. The students rose to the occasion and presented me with a bevy of essays characterized by quite mature and thoughtful writing. They retained few if any illusions as to the state of their city in the total absence of the police. Murder, rapine, and violence ran rampant, for each individual became his own law and his own protection. A seventeen year old youth remarked to me later ". . . you know I never thought much about the real importance of the cops before . . . they were just some guys who gave out traffic tickets. But I'm beginning to see why my Dad's car will be in the driveway when I get home tonight." Possibly a clue to the gradual sociological change of perspective regarding law enforcement lies in our secondary schools with teachers assuming the lead. They might include in their social studies classes at least one unit of study and research stressing the positive contributions of the police toward social equilibrium.

Occasionally official cognizance is taken of the police handicaps fostered by the anti-cop attitude, but this is rare. Justice Borquin speaking in United States v. Rogers stated, "It is true a policeman's lot is not a happy one, and nobody loves the officers who enforce the law and keep the peace . . . if the laws are most poorly enforced and justice most weakly administered . . . the . . . reprehensible treatment of of-

[4] *Morals and Politics,* E. F. Carritt, Oxford University Press, 1935, p. 216.

[5] *Social Contract—Essays by Locke, Hume, and Rousseau,* Oxford University Press, 1952, p. 246.

ficers of the law is a large contributing cause."[6]

The celebrated California Cahan decision has also added some volatile fuel to the flames of controversy by declaring that virtually any relevant evidence if illegally obtained is no longer admissible in criminal proceedings. The criteria for so determining are the illegal search and seizure principles embodied in the Fourth Amendment to the Federal Constitution. The California Supreme Court has contended that the police are violating civil rights through illegal search and seizure methods of obtaining evidence, but perhaps an equation can be formulated at this point. Does the zealous protection of the civil rights of a minority criminal element equal a possible greater danger to the civil rights of the great majority whose police protection is thereby compromised? In other words do we choose a smaller or a potentially greater evil? Evidence obtained by various means, though in possible technical violation of civil rights, can well result in increased police effectiveness. Might this not be justified in the sense that resulting convictions are in the long run protecting the civil rights of the majority?

In conclusion I contend that our culture may be evolving from an emphasis upon freedom of the individual to that of utility of the group, especially in the light of our enormous population increases. Therefore it is conceivable that the functions of the group (i.e., the body politic) must be protected even at the expense of occasional compromises of individual civil rights. Further, this very concept of civil rights becomes an academic issue without the utilization of small uniformed cadres of professionally trained *civil rights protectors* whom we call the police. It must also be stated not merely police, but more and more professionally trained police are mandatory for the very protection and continuation of that democratic philosophy which criticizes them. The paradox of human nature seems to be that force must be employed to prevent us from developing into a force theory of politics. Here is the crux of the police role in the democratic state for the preservation of "liberty under the law." ★★★

[6] 53 F2d 874.

Members of the Editorial Staff of the Journal and the Publisher extend to a growing host of readers, Greetings and Best Wishes for the New Year.

An Open Letter to Police Chiefs

Dear Chief:

Leaders in the field of police administration are welcoming the establishment in New York City of the National Training Center of Lie Detection.

The steady growth in the use of the polygraph by more and more law enforcement agencies has brought out the necessity for a thorough and modern training course for polygraph examiners.

This course, taught only by qualified experts, is especially designed for law enforcement personnel, and the emphasis is placed on the testing of criminals.

Those interested in the proper training of personnel in scientific lie detection should write for the current bulletin and any other information desired.

Sincerely yours,
Cleve Backster, Director
Richard Arther, Chief Instructor

National Training Center of Lie Detection
Suite 1109F
57 West 57 Street, New York 19, N.Y.

Panic Stops—Test Tires for Stopping Ability

DO all tires have the same stopping ability? How reliable is the square law formula for computing the speed of a vehicle by measuring the skid marks laid down in a panic stop?

For a long time it has been commonly assumed that all tires have relatively the same stopping ability on a clean, dry, level road surface when the brakes of the vehicle are locked to produce a skid. On this basis it has also been assumed that the initial speed of a vehicle, prior to skidding, can be determined by establishing the coefficient of sliding friction, measuring the skid marks and using the formula:

$$\text{Length of skid marks} = \frac{V^2 \text{ (V-velocity)}}{30\ F \text{ (F-friction coefficient)}}$$

Thus to find velocity or speed of the vehicle prior to skidding the formula is:

$$V^2 = \text{Length of skid marks} \times 30\ F$$

There has been little recent experimental testing involving locked wheel stops on dry pavements to confirm this formula.

To supply more data and to determine whether even more research in this area is needed, the M.S.U. Highway Traffic Safety Center undertook a pilot study of locked wheel skid performance of various tires on clean, dry, road surfaces.

Under the direction of Dr. Samuel Mercer, Jr., associate professor in the University's applied mechanics department, the research project was conducted with the cooperation of the General Motors Proving Grounds at Milford, Michigan.

Assisting Center staff members in conducting the tests were General Motors Proving Grounds personnel under the direction of Paul C. Skeels, in charge of the experimental engineering department.

Representatives of the National Safety Council and the U.S. Bureau of Public Roads aided in the planning as well as testing phases of the project.

Four tire companies: Goodyear, Goodrich, Firestone and U.S. Rubber supplied the tires and also representatives to act as observers.

Each company provided 12 tires and 4 wheels. Tires were one hundred level, size 6.70 x 15, synthetic compound, blackwall, tubeless and were selected at random from warehouse stocks. All tires were run a minimum of 200 miles under normal operating conditions before tests were started.

Three different road surfaces were used for the tests. First was a straight, level bituminous asphalt surface; the second was a level, concrete surface and the third was a section of U.S. Route 16, near Brighton, Michigan, a heavily used bituminous asphalt highway.

Panic stop tests were performed at 30, 40, 50 and 70 miles per hour. (A panic stop is obtained when the driver applies the brakes with such force as to lock the wheels quickly.)

Vehicles used were a 1956 Chevrolet station wagon and a 1956 Chevrolet four-door sedan. The sedan was also sandbagged to produce a heavier wheel loading (equivalent to the Pontiac class).

In addition to panic stop tests, tires were dragged in pairs mounted on a special trailer dynamometer developed recently by General Motors' engineers to measure road friction.

The ability to stop on a clean, dry, level road surface is essentially dependent on speed, vehicle characteristics, road surface type and tire characteristics. In this study, skidding speed and tire characteristics were found to be the most influential factors.

Results of the study indicated that while there were variations in the stopping ability of tires of different makers, and to a lesser degree among tires of the same make, these variations were relatively small. The greatest difference amounted to approximately 10 per cent at the 70 mile per hour speed. Differences were less at slower speeds.

Of most significance was the consistency for friction coefficients to increase slightly as the speed of skidding increased.

This is at variance with most other published material on the subject. It indicates that a tire's stopping efficiency improves slightly as the skidding speed increases, but before any further interpretations are made, additional research should be accomplished.

The effect of load on stopping ability was measured. It was found that stopping ability decreases slightly as the load increases.

Despite the many factors which may have some effect on the distance a vehicle will skid to a stop on clean, dry pavement, the recommended method of estimating speeds in accident investigations through use of the speed squared formula was found reliable.

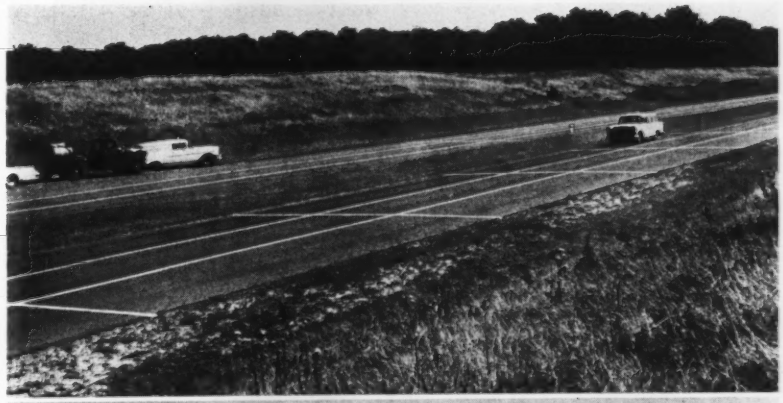
Under carefully controlled conditions, using the same tires, vehicle and road surface, such estimates are within 5 per cent of the true speed. Even where different makes of tires are involved on the test vehicle (assuming that the accident-vehicle is not available) and such tires are of comparable condition and quality, estimated speeds will be within 10 per cent of actual speed.

The study showed that such speed estimates are predominantly conservative.

Address: Norbert A. Hildebrand, Editor, MSU Center Letter, D Wells Hall, Michigan State University, East Lansing, Michigan.

Observed speed:
Length of skid marks:
Friction coefficient:
30 miles per hour
42 feet
.715 (average of four tests)

$V^2 = 42\ (30)\ .715$
Estimated speed:
30 miles per hour



Observed speed:
Length of skid marks:
Friction coefficient:
50.4 miles per hour
114.9 feet
.715

$V^2 = 114.9\ (30)\ .715$
Estimated speed:
49.6 miles per hour

Observed speed:
Length of skid marks:
Friction coefficient:
69.8 miles per hour
212.6 feet
.715

$V^2 = 212.6\ (30)\ .715$
Estimated speed:
67.5 miles per hour

For example, speed estimates were made with the speed squared formula based on the average friction coefficient of 4 stops at 30 miles per hour for each set of tires of the same make. When these speed estimates, based on the average friction coefficient were compared with actual speed (40, 50 and 70 mph tests) the estimates were found to be in error a maximum of +0.7 and –3.5 miles per hour. Estimates were predominantly lower than the actual speed.

When speed estimates were made with the speed squared formula based on the average of the lowest coefficients of friction (obtained on the 30 mph stops for all tires) and then on the average of the highest coefficients (30 mph stops) the variation bteween estimated speed and actual speed at 70 mph was found to be +0.2 to –5.6 miles per hour.

This would be comparable to making speed estimates based on a drag factor established by comparable tires, rather than those on the accident-vehicle.

Again in the majority of cases, the estimated speed was lower than the actual speed.

Such conservative consistency in determining speed by the speed squared formula occurs because tires tend to develop more tractive effort when skidding at higher speeds than at lower speeds. When friction coefficients are determined with tests at lower speeds and then applied to typical accident investigation problems, it generally produces speed estimates lower than actual speed because of this increase in tractive effort. . . . Courtesy MSU CENTER LETTER. ★★★

University Level Training for the Police Services

By A. F. Brandstatter

EDITOR'S NOTE: *Undergraduate, and in a number of instances, graduate programs are offered in the law enforcement major in thirty-two universities and colleges in the United States, and one in Canada. This is not enough. More university and college administrations need to discard some of the obsolete shackles of academic tradition and bring their superb training resources into contact with the personnel requirements of this branch of the public service. It is a relatively simple operation. Most, if not all of our major educational institutions include in their regular offerings more than 90 per cent of the subject materials that should be geared into a professional four-year undergraduate program leading to the Bachelor degree in the law enforcement major. It only remains to superimpose upon these in an integrated program the necessary technical professional courses.*

This is the first of a series of articles dealing with programs at various educational institutions offering academic degrees in the police or law enforcement major. The author of the present article is Professor and Director of the School of Police Administration and Public Safety at Michigan State University, East Lansing, Michigan. A former member of the Detroit police force, Brandstatter received the B.S. degree and the M.A. degree, both at Michigan State. He visited Germany in 1950 as a consultant to the public safety division of the High Commissioner's Office for Germany; he also served as a consultant to the Governmental Affairs Institute in Washington, D. C., in 1952 and to the Treasury Department in 1954. Brandstatter visited Indochina with three other M.S.U. faculty members in the fall of 1954 to assist the South Vietnam government solve non-military administrative problems.

MICHIGAN State University is situated at East Lansing, four miles east of the State capital. It is one of the ten largest educational institutions in the country, with a total enrollment of more than 20,000. In the greater metropolitan areas of Lansing and less than 100 miles from Detroit, excellent opportunities for field research and training are available.

M.S.U. was founded in 1855. Instruction in police administration was inaugurated in 1935 and expanded following World War II to include six major areas of study to answer the needs of the growing law enforcement field and related areas of interest. A four-year undergraduate program leading to the degree of Bachelor of Science and a one-year graduate program leading to the Master of Science degree are available. Since 1935, several changes have occurred in the program that pioneered law enforcement education in the United States. The original course consisted of four years' on-campus academic work, followed by one academic year of field service training administered by the Michigan State Police Training Division. In subsequent years, the department was transferred to the newly created School of Business and Public Service; the length of the Field Service Training Program was reduced and numerous changes made in the "on-campus" curriculum, until the program reached its current status. It is presently known as the School of Police Administration and Public Safety, a branch of the College of Business and Public Service of Michigan State University. The present program consists of four regular academic years, which include two terms of field service training.[1] The degree of Bachelor of Science is still granted.

The history of the development of the School of Police Administration and Public Safety is filled with accounts of many discussions and debates about the value of professional police training at the university level, the exact nature of curricula and course content, the composition of the teaching staff, requirements for student admission, employment of graduates, and numerous other details which at times assumed monumental importance to those concerned with the program. In an attempt to evaluate the present status of the program, it may be interesting to quote from a policy statement which describes the goals and objectives of the school: "The goal of the School of Police Administration and Public Safety endeavors to serve two general areas, 1) that of the *student body* and the pre-service educational opportunities for young people, and 2) to assist the *practicing law enforcement officer*. Obviously, the needs of the students must be met first, yet many direct and indirect benefits result to those already engaged in the field of law enforcement through the satisfaction of the first obligation.

"Obligations to the student body are met by carrying out the following objectives:

1. To inculcate within the minds of young men and women a better and higher concept of citizenry.
2. To develop a comprehensive program which can efficiently prepare students for careers in law enforcement administration, highway traffic administration, industrial security administration, police science, correctional administration, and prevention and control of delinquency and crime, at all levels of government; or service in the broad areas

Address: A. F. Brandstatter, Professor and Director, School of Police Administration and Public Safety, Michigan State University, East Lansing, Michigan.

[1] Michigan State University operates under the quarter system. A normal academic year includes three terms, each term having approximately eleven weeks of instruction.

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of public and private safety—all of which contribute to the welfare of our fellow man.

3. To develop within the student an understanding of constitutional guarantees and due process of law, insofar as it affects the total administration of justice.

4. To foster an understanding of man's moral and legal responsibilities to his fellow man, his community, and his nation.

5. To maintain a program of graduate studies which provides additional training for the development of future leaders in these several areas.

6. To engage in research and inquiry which will enlarge the body of knowledge pertinent to the achievement of the above objectives."

In an effort to clarify the above statement and provide some insight into the operation of the M.S.U. program, it is worthy to note that changes within the school have been guided and motivated by the following concepts:

1. It is felt that academic instruction in the professional police courses should be provided by people who have a satisfactory academic background, in addition to practical law enforcement experience. This is necessary, if the student is to be provided with accurate information about the administration of justice; however, this teaching should not be obscured with personal prejudices. It is important that the pre-service student be exposed to factual information, yet be afforded an opportunity to view current practices with a critical and inquiring mind. In addition to the professional police courses, the student must pursue related courses in other academic disciplines which provide him with a well-rounded educational background.

2. The M.S.U. School of Police Administration and Public Safety has always felt that university training in the law enforcement field must strike a happy medium between true higher education and vocational training. Thus, it is believed that the off campus Field Service Training Program, which is in reality a type of internship, is a solution to the necessity for acquainting the student with the tools of his chosen profession, in addition to providing a frame of reference for theoretical information gathered in the classroom.

In this latter respect, Michigan State has been particularly fortunate in continuing to enjoy the fruits of a well-integrated field program established by the Michigan State Police in 1935. As the number of students has grown, certain revisions have been made and new training agencies have been added; however, the basic concept of the field service program has never been lost.

A brief review of statistical records reveals that the first class of three Police Administration students was graduated in 1938. Enrollment has increased steadily, and the 1957-58 school year lists 401 students enrolled in the six areas of study—Law Enforcement Administration, Police Science, Highway Traffic Administration, Correctional Administration, Industrial Security Administration, and the Prevention and Control of Delinquency and Crime. A total of 631 students have been graduated since the first graduated class in 1938.

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A common objection to police administration programs at the university level has been that they are either too highly specialized or fragmented to such an extent that the quality of individual programs is open to criticism. The M.S.U. program has undergone a change, which at times appeared to be in conflict with its own basic philosophy, yet seems justifiable in the light of present conditions.

The core program of the School is the skeletal framework for studies required of all students and includes the Basic College requirements:

FRESHMAN YEAR

Communication Skills	9 credits
Natural Science	12
Social Science	12
Military or Air Science	3
Health, Physical Education and Recreation	3
Introduction to Police Administration	4
Group Electives	6

SOPHOMORE YEAR

Humanities	12 credits
Military or Air Science	3
Health, Physical Education and Recreation	3
Group Electives	33

JUNIOR YEAR

Group Electives	53 credits

SENIOR YEAR

Field Service Training Program	24 credits
Critical Evaluation of F. S. T. P.	2
Group Electives	13

TOTAL CREDITS REQUIRED FOR GRADUATION 192

The program in Law Enforcement Administration is the oldest of the six areas of study and comprised the entire Police Administration curriculum until 1947. It is specifically designed for those students desiring a general, well-rounded background, including technical and administrative study preparatory to career service in law enforcement agencies. This course has always attracted the greatest number of students and is generally considered to be the nucleus of the School of Police Administration and Public Safety. In addition to the courses listed in the core plan, this program requires the following number of credits from the group electives:

Police Administration and Public Safety	51 credits
Business and Public Service	15
Arts, Sciences, and Education	18
General Electives	21

The Police Science program was established in 1947 and is designed to prepare students for careers in criminalistics. The student who selects this program as a major field will pursue a course of study rich in laboratory and scientific discipline. It introduces the student to the various problems dealt with by the criminalist, in addition to basic training in investigation, criminal law, criminal evidence, and work in the field.

In addition to the courses indicated in the core curriculum, this program requires the following number of credits from the group electives:

Police Administration and Public Safety	13 credits
Arts and Sciences	68
General Electives	24

The Prevention and Control of Delinquency and Crime curriculum was established in 1949 and provided the first opportunity for women students to enroll in the School. This program was developed to provide an opportunity for young people to serve with police departments, as well as other public and private agencies, that are establishing programs to understand the causation and the control and prevention of delinquency and crime.

Those electing this area of study will pursue a program emphasizing social science and social work content. In addition to the courses indicated in the core curriculum, this program requires the following number of credits from the group electives:

Police Administration and Public Safety	38 credits
Business and Public Service	15
Arts, Sciences, and Education	18
General Electives	34

The Highway Traffic Administration course of study was developed in 1952. It is designed to prepare students

for career work with traffic safety councils, traffic commissions, and traffic safety associations of states, cities, counties, and metropolitan areas, as well as with police departments. The curriculum is designed to give the student the needed background in the technical aspects of street and highway traffic administration and in the related fields of knowledge essential in the administration of street and highway safety and traffic facilitation. Trained people are critically needed for this type of work to assist in solving the problems of street and highway traffic.

In addition to the courses indicated in the core curriculum, this program requires the following number of credits from the group electives:

Police Administration and Public Safety	9 credits
Business and Public Service	15
Arts, Sciences, Education, and Engineering	55
General Electives	26

The Industrial Security Administration curriculum was established in recognition of the fact that many graduates of the law enforcement program have obtained employment with private enterprise, rather than the governmental services. This program has received additional impetus from plant protection, industrial security, labor relations, and personnel officers of large corporations, many of whom are interested in employing graduates with specialized training in this field.

The Industrial Security program includes an orientation in law enforcement; major emphasis is on an industrial and commercial application, with courses providing an extensive description and evaluation of the objectives, functions, and activities of protection programs as practiced by private agencies.

Graduates of this field may seek employment within a wide range of organizations, industrial plants, insurance companies, banks and other fiscal institutions, retail merchandising enterprises, and other related fields.

In addition to the courses indicated in the core curriculum, this program requires the following number of credits from group electives:

Police Administration and Public Safety	41 credits
Business and Public Service	18
Arts, Sciences, and Education	16
General Electives	30

The Correctional Administration program was recently established as a separate course of study, primarily because of the heavy demands in this area for trained personnel. Local, state, and federal agencies are in need of specialists for institutional programs and for parole and probation services. Of the six areas of study currently offered, this division has expanded most rapidly and offers great promise for future development.

Graduates may seek career opportunities in probation and parole systems and in public and private institutional work at the local, state, and national levels of government.

In addition to the courses indicated in the core curriculum, this program requires the following number of credits from the group electives:

Police Administration and Public Safety	38 credits
Business and Public Service	15
Arts, Sciences, and Education	18
General Electives	34

It was inevitable that a program of approximately five years' duration should eventually spawn a graduate study division. This was accomplished in 1956. The move, however, was not completed without much study and inquiry, and still poses certain unresolved questions. Experience has shown that the fields of crime prevention, penal administration, and criminalistics have outdistanced other branches of law enforcement in recognizing the value of graduate degrees. It is unfortunate to note that the traditional areas of law enforcement, particularly municipal and state agencies, have only recently begun to recognize the value of college level pre-service training and are beginning to recruit students with bachelor's degrees in police administration and related areas. It is difficult to speculate when graduate degrees will be meaningful in these areas. The M.S.U. program takes cognizance of this current attitude and is moving cautiously in the field of graduate study, with the expectation that in due time the graduate program will enjoy the same success which the undergraduate program has achieved during the last two decades.

This paper has presented a brief, but relatively comprehensive account of the Police Administration and Public Safety program of study at Michigan State University. Although the novelty of law enforcement education at the university level is no longer newsworthy and much progress has been made, a long road lies ahead of faculties teaching police knowledge at higher educational institutions. Well-organized and highly-developed undergraduate and graduate programs are in existence. However, little, if any, research has been accomplished in law enforcement work. With a faculty numbering fifteen persons, this is the area which will receive the greatest attention from the M.S.U. staff in the years ahead. This comment is made as the result of steady growth and acquisition of a heterogeneous faculty which has provided a stimulus for continuous self-appraisal and an assessment of current and future needs.

It is the hope of members of the staff and student body that law enforcement administrators and practitioners will continue to maintain a progressive attitude toward the educational foundations of their chosen profession and continue to support and endorse the efforts of institutions of higher learning in their behalf. ★★★

WATCH THAT PRISONER!

According to statistics recently compiled and released, a total of 313 officers were injured in the line of duty while handling prisoners during the period beginning on July 1, 1957, and ending on June 30, 1958.

Laboratory Toxicology and the Investigator

By J. D. Chastain

EDITOR'S NOTE: *The author received the Bachelor degree with a major in chemistry from Howard Payne College, Brownwood, Texas, in 1948. He began his career in the police field with the Texas Department of Public Safety on August 1, 1948, and attended the three months course for recruit Texas Highway Patrolmen at the Department of Public Safety Police Academy. Upon graduation, he transferred to the Laboratory as a chemist and toxicologist. Later, he was promoted to Chief Chemist and Toxicologist and served in that capacity for six years.*

On September 1, 1958, Mr. Chastain was promoted to Laboratory Manager in charge of the entire Crime Laboratory, composed of six sections: Chemistry, Firearms, Latent Fingerprint, Photography, Polygraph and Questioned Documents.

TOXICOLOGY has been defined as the science dealing with the properties, physiologic action, detection and estimation of, and antidotes for, poisons. A poison is any material which, if introduced into the living body or brought in contact with any part thereof, will produce ill health or death. This is a subject of interest to all officers. The duties of the officer in cases of poisoning or suspected poisoning are, in the main, of a fairly simple character, and when efficiently carried out the subsequent work of the toxicologists is simplified considerably On the other hand, any neglect or forgetfulness entails corresponding complications in the work of the expert and may even render it futile.

An analytic toxicologist undertaking toxicological analyses, in justice to his work and to himself, must insist upon being supplied with the fullest information possible about all the cases in which he is consulted. The analyst should be informed whether or not extraneous evidence was found at the scene of death. Medicinals or a prescription submitted as evidence in suicides may reduce the analysis to a single determination. The contents of unlabeled pills or capsules or an apparently empty drinking glass are much easier to identify than the same material extracted from the organs, and they serve as a convenient starting point in the examination. The analyst should be informed concerning treatment if the deceased was under the care of a physician; if death occurred after hospitalization, he should be furnished with any records of drug therapy. The importance of obtaining all available information about the circumstances of the poisoning and particularly about the drugs administered therapeutically to the deceased cannot be overemphasized. There are many cases in which much time has been spent in identifying an isolated drug only to find that this substance had been given as a therapeutic agent.

In a state toxicological laboratory the large volume of work would be impossible to handle if short cuts in analytic procedure had not been suggested to the toxicologist by information available in the different cases. The time of death in relation to the onset of symptoms is a major factor in planning a procedure for the analysis. Many persons overcome by carbon monoxide die after 24 hours. The gas may not then be demonstrated in the blood. Tests on victims of accidents who have lived for some hours do not give alcohol values indicative of the degree of intoxication at the time of the accident and after 18 to 24 hours may fail to show any evidence of having ingested alcohol. Death from ingested carbon tetrachloride may occur in a few days from extensive degenerative processes in the viscera, but by the time of death all of the poison may have been eliminated.

As can be seen, the work of the pathologist and toxicologist should go hand in hand. The pathologist can eliminate many substances from gross examination at autopsy and can further eliminate or indicate suspected substances from microscopic study. If the body is investigated by someone not used to autopsy work, much valuable information may be missed and the specimens most needed for the chemical examination may be lost, buried (or reburied), or burned. The stomach is the organ most commonly removed and may contain poison, but no poison in the stomach ever killed anyone—the poison that was absorbed and which injured the brain, heart, blood, liver, or kidneys is the important poison. Get as much information about the cases as possible. Information furnished should include: the interval between taking the last food and/or drink and the first appearance of symptoms of poisoning and death; the nature of the first symptoms; whether any of the following symptoms were present: vomiting and purging, deep sleep, tingling of the skin and throat, convulsions or twitching of the muscles, delirium and clutching at imaginary objects; the nature of any other symptoms noticed; search should be made of the premises for the remains of food, drink, or medicine; and for bottles, glasses, and hyperdermic syringes, any of which may provide evidence of the nature of the poison. This background information along with the information furnished by the pathologist will greatly aid the analyst.

After the analytic toxicologist has recorded all of the available information on the case, the course of his anal-

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ysis is guided by the material at his disposal and evidence at hand as to the possible cause of death. Case history, clinical symptoms, testimony of witnesses, extraneous evidence found at the scene or pathologic findings may suggest a particular substance as the toxic agent. Such information, therefore, centers his attention on one particular poison, and he can refer to the literature for the physical and chemical properties of the compound. A specific isolation method can be developed and identifying reactions applied to the isolated substance. The analytic approach in this type of case is a direct one in that the analyst has a lead as to the nature of the poison. The presence of the suspected substance will be verified or ruled out as effecting the death, and a complete examination is indicated. When history is not known and pathologic findings are absent, the analytic problem confronting the toxicologist is quite different. This type of case is listed as "general unknown." It is this type of case that most logical poisons are checked first then further analyses are made, usually until the viscera is expended or a toxic substance detected in a lethal concentration.

Postmortem decomposition, embalming, and cremation introduce conditions which seriously interfere with the toxicologic examination. Postmortem changes are likely to contaminate tests for the poisons, either by altering the structure of the drug or by forming substances which simulate it chemically. Results of quantitative analyses for many substances will be unreliable, although heavy metals and relatively stable organic compounds such as strychnine and some barbiturates can be isolated and identified satisfactorily. Exhumed bodies present the problem of postmortem absorption and contamination. In those cases in which heavy metals are suspected, portions of surrounding soil and wrappings of the corpse should be examined in order to eliminate the possibility of contamination from the outside.

Embalming nullifies the tests for most volatile poisons and interferes with the isolation process for all of the non-volatile organic compounds. Formaldehyde (embalming fluid) undergoes condensation with cyanide and many other compounds so that even when isolated in quantity the material does not respond characteristically in the identifying reactions. Embalming fluid makes analysis for ethyl alcohol in questionable intoxications or acute alcohol poisoning difficult and unreliable. Also the embalming fluid may contain other substances that would interfere. Cremation, which reduces the corpse to a fine ash, nullifies most toxicologic tests. The destruction of the body by corrosive acids or alkalies also interferes with toxicologic analysis for all poisons but a few metallic ones.

The material collected at autopsy for chemical examination is selected on the basis of case history and pathologic findings. Material from a "general unknown" should include the complete stomach and contents, liver (500 to 1,000 grams), one kidney, blood (100 cc), urine (all available), brain (500 grams). An inadequate amount will seriously hamper the analysis. If the toxicologist is forced to work with insufficient sample, the limitations imposed in the testing process are the responsibility of the person who selected the material. It is easy for the analyst to dispose of unused material, but if the quantity supplied is inadequate, the size of the sample tested must be reduced in order to conserve material for further testing and the difficulties connected with the analysis mount proportionately.

Organs removed should be placed in clean glass jars, sealed and properly labeled. Each specimen should be placed in an individual jar, which is labeled with the name of the case, and the date and place of the examination. It is highly important that each specimen should be in a separate container since the poison may be transferred from one organ to the other in the same container. This would give rise to an incorrect quantitative determination for the specific organ. Liquids which may be suspected to contain poison must never be transferred from their original containers to bottles or jars unless it is definitely known that these have been thoroughly cleaned. In fact, the liquids should be delivered to the analyst in their original container if it can be sealed and nothing in any form should be added as a preservative.

Urine, blood, and vomit should be placed in properly cleaned bottles. If possible the organs and material should be kept in a refrigerator or better still in a deep

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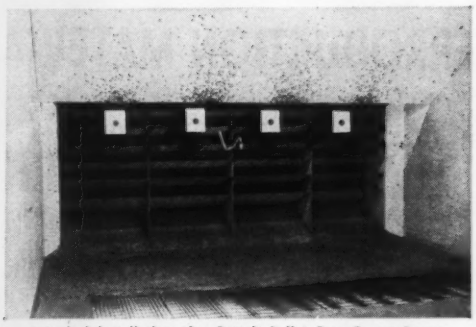

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freeze. In these cases it is absolutely necessary to show in court that no one but the pathologist and analyst, or some other responsible person, had access to the material. Therefore, the specimens should be transported as soon as possible to the laboratory by some responsible person who will be able to identify the material in court. The ideal situation would be for the pathologist to deliver the organs personally, however, many times on a statewide basis this is not feasible, but it goes without saying that the less the evidence is handled the better the case. A permanent record should be made of the viscera or substance contained in each container and a list of items submitted.

Postmortem appearances quite frequently indicate specific types of individual poisons and this information is of vital importance to the analyst in carrying out his examinations for poisons. Some of the frequently encountered appearances and the poison they indicate are therefore listed as a reference.

Postmortem Appearances	*Suspected Cause*
Stains about the mouth, brownish or yellowish or charring of tissues	Strong mineral acids, oxalic acid, carbolic acid, lysol
Corrosion and softening of tissues of mouth and throat	Alkalis
Bright red spots of skin	Hydrocyanic acid, cyanide, carbon monoxide
Tissues abnormally red	Potassium (or sodium) nitrate, carbon monoxide
Multiple hemorrhages in skin and surface of internal organs	Phosphorus, poisonous mushrooms, heat stroke
Skin cyanotic (Bluish discoloration)	Hydrocyanic acid, phenol, nitrobenzol, carbon dioxide, silver nitrate
Red (skin)	Carbon monoxide
Pupils contracted	Belladonna, stramonium, henbane, scopolamine, gelsemium
Dark line on gums	Opium or some of its preparations (not always), lead, bismuth, mercury
Putrefaction markedly delayed	Alcohol, arsenic, mercury
Putrefaction rapid, absence of rigor mortis	Poisonous mushrooms
Protracted rigor mortis	Strychnine
Blood much disorganized and chocolate colored	Potassium chlorate
Vomitus contains shining green particles	Cantharides (Spanish Fly)
Vomitus green or bluish green	Paris-green, copper salts
Vomitus yellow or reddish yellow	Picric acid, potassium bichromate, lead, chromate, orpiment, acriflavine, selenium, pyridium (a drug)

There is no standard method of analysis in examinations for poisons. The knowledge, experience, and skill of the individual analyst, along with background information on the case, will determine the procedure to be used in each specific case. It is impractical to try to describe all the different methods of analysis for poisons but a brief discussion of a typical analysis is offered so that the investigator will appreciate the voluminous work and time involved. Generally a specimen is steam distilled for the volatile substances, such as alcohol, cyanide, phosphorus, etc. Some tissue is also subjected to the old and well-known Stas-Otto procedure by which it is digested (cooked) in a solvent and extracted with various immiscible solvents at different pH (acid or alkali) levels. Also digestion of the tissue to a liquid is made and tests conducted for the various heavy metals. Tests are carried out for gaseous poisons and special methods are employed for the rare poisons indicated. The time to conduct such toxicologic methods will require a minimum time of three days, unless a specific poison is indicated. Some cases require a week or more.

Poisoning as the cause of death should be considered in deaths which are not easily proven otherwise. Evidence should be saved and records kept if there is cause for suspicion. A thorough pathological and toxicological investigation will prove or disprove poisoning, and as in every case, the sooner investigated, the easier the proof.

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★★★

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The Objectives of Police Patrol

By Raymond E. Clift

EDITOR'S NOTE: *For nineteen years, Mr. Clift was a member of the Cincinnati Police Department. During the last four years, he held the rank of Supervising Captain and was Superintendent of the Police Academy. He taught not only in the Cincinnati Police Department but at the Southern Police Institute, Northwestern Traffic Institute and the National Police Academy. As a veteran police officer, safety expert and practicing lawyer, he has spoken before hundreds of organizations in Cincinnati and in other cities. His interests include all phases of accident prevention and in particular, those dealing with law enforcement about which he has written a book, entitled,* A GUIDE TO MODERN POLICE THINKING, *which should be in the personal library of every police officer.*

Mr. Clift is Training Officer for the Ohio First Area Civil Defense Corps and in that capacity, he has made an extensive study of Civilian Defense problems. He visited England, France and Germany for this purpose in 1952, and he also visited Europe in 1956, in connection with his study of Civilian Defense. He is today Executive Director of the Greater Cincinnati Safety Council.

A RECENT news account told of the striking increase of crime in a certain large American city. It stated that major offenses had almost doubled in the past ten years, and that juvenile delinquency had quadrupled. Supplementing these statements with actual cases, the writer went further and indicated that several of these cases occurred in the Park areas, and not a few of them involved women. Many of the offenses were purse-snatching, but a number of them were assaults. Some of these went almost to the point of murder, with the victim being mercilessly beaten for no apparent reason other than the possible thrill it gave to the assailants.

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The writer indicated that most of these offenses were solved with the arrest of the culprit soon after the crime. This, he thought, was to the credit of the police. He left the impression notwithstanding, however, that apprehending the criminal after the crime was still a little short of what the public expected from its police . . . especially in this matter of protecting the citizen's person from physical violence.

The account started me thinking, as I am sure it did with many others interested in police work, about the objectives of our present day police patrol. I wonder if we are getting out of it all that we should and, if this is not so, I wonder if it isn't because we have confused the objectives we are trying to achieve in this matter? Are we interested, for instance, in repressing crime in the first place, or are we primarily concerned with arresting the violator after the act? These questions, it seems to me, should be asked of the patrol supervisor each day he goes on duty for the answer he gives will determine the course of his whole day's operation.

The questions used to be asked in the police service when I was an active police officer. I remember, as a young patrolman, hearing them discussed many times. I was impressed in this matter by the advice of an elderly lieutenant for whom I worked. He would inform us frequently, at the beginning of a tour of duty, that the main function of the patrolman was to see that the crime did not occur.

"If you do that," the lieutenant would say, "you are entitled to more credit than the man who catches the criminal after the crime." Then he would refer to the rule in our Manual of Rules and Regulations which read as follows:

He shall, by his diligence, render it extremely difficult for anyone to commit a crime on his beat, remembering that the patrolman who keeps his beat free of crime and disorder deserves more credit than he who counts upon the number of arrests and convictions he has obtained for offenses committed within it.

There were many who felt differently than me, however. They figured that only the big crime was important enough to worry about and that you wasted your time in too much attention to patrol. "You'll never make any decent cases," a few would scornfully say, "if you're out there where they can see you all the time. You've got to play the game the way the violator plays it if you want to catch him . . . and it's only when you catch him that the public pays any attention to you." Preventive patrol made very little sense to these critics.

This kind of thinking, apparently, exists in the minds of many police administrators today. They want their men to hit the headlines. You can pick up a newspaper in any city and find it splashed throughout with pictures of police officers who have made a "good catch." Hero medals seem to be the rule rather than the exception.

It is precisely in this area that I believe we have confused our patrol objectives. Not that I don't think brave men should be recognized. Surely this is right and proper, especially when a courageous officer has risked his life to snare a dangerous felon. I wonder, however, if it is not being overdone or, putting it another way, I wonder if there aren't some others on the team who deserve a little credit, too? Moreover, if we changed the emphasis on patrol so as to give more attention to preventing the crime in the first place, might it not be possible

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for us to have less of the "cops and robber" drama that we read so much about today?

Some cities are beginning to experiment with this idea. They are putting the officer back in the business of "repressing crime," sometimes in a way that smacks of old-time police methods, yet they are giving it a try. One city, for example, has resorted to bicycle patrol in its business area at night, while several have considered the use of dogs in police patrol. An ever increasing number of departments, too, are adopting the idea of one-man patrol cars in order to spread their men around and double their coverage in a preventive police effort.

This kind of patrol is needed. It is needed in protecting the individual from personal violence, but it is needed also in crimes against property, including larceny and burglary. The need for this kind of police surveillance is also evident in the approach to juvenile delinquency and its prevention.

Traffic regulation and enforcement requires, too, that policemen constantly review their patrol practices to see if they are applying pressure where needed . . . and the right kind of pressure. Are we, for instance, primarily interested in arresting the traffic violator? If we are, then we may have to make ourselves inconspicuous at least part of the time. If, on the other hand, we are mainly interested in preventing the infraction and in seeing that the motorist displays the correct driving habit so as to avoid accidents, then we will have an entirely different approach to this problem.

Police administrators in general, and traffic supervisors in particular, are not in agreement on how to go about this matter. Some instruct their men to patrol openly, in full view of the public, making themselves as conspicuous as possible, while others tell their men to be more discreet in this matter.

Undoubtedly, a patrol effort of the latter type either in traffic or in non-traffic matters, does have a certain immediate good effect. In traffic, it slows motorists down and makes them fearful of committing even the slightest traffic violation. In this sense it is good. On the other hand, however, it makes the motorist suspicious of every policeman. In this respect it is certainly not a wholesome thing as it breaks down the spirit of cooperation.

Police work, like all service that relates closely to people, is made up of a number of little things and we should keep these in mind in our patrol activity. We should remember, for example, that major crime is often only the culmination and the end result of a number of minor infractions that have been allowed to go uncorrected, possibly over a number of years. If an alert patrolman had been "on the job" earlier in these matters, perhaps the graver offenses would never have occurred. Moreover, the policeman, while preventing the minor violations, would have been making friends for himself and his department. This is important, too.

Aside from its public relations value, however, there is another reason we should constantly review and appraise the objectives of our patrol effort. This is related simply to the matter of economics. Police work is expensive today and is becoming costlier the more complex and gadget-minded we make it. Of course some of this is unavoidable. Good communications systems and efficient motorized equipment, for example, are necessary in all departments, but we must re-examine our patrol objectives and methods to be sure that we are getting a return on the investment.

The right objective in all patrol matters, it seems to me, is the development of a spirit of helpfulness on the part of the public. People must be induced to voluntarily comply with the law for it will never be possible to hire enough policemen to "make" them obey. Moreover, the citizen should be conditioned to acknowledge the authority of the police agency itself, and to give to it the kind of support it needs in a democratic society.

How do we go about doing this? Well, perhaps that is a question we will each have to answer in his own way. For my part, though, I say it must be done by a new look at our present day patrol objectives, by a greater emphasis on crime prevention and repression on the part of policemen everywhere, and by a gradual playing-down of the violent aspects of the police operation. Such dramatic activity makes the headlines, provides good material for TV thrillers and brings renown to a few officers . . . but it lacks substance in assuaging the hurts of a crime victimized society.

Only a police patrol close to the people, and one which concentrates on stopping the trouble before it starts can do that . . . and that's what we need most in police work today. ★★★

Driving Efficiency Requires Optimal Stimulation

By A. R. Lauer

EDITOR'S NOTE: *Dr. Lauer is Professor of Psychology and Director of the Driving Research Laboratory at Iowa State College, representative of a number of educational institutions where important research in the approach to various phases of the traffic problem is underway. A frequent contributor to the* JOURNAL, *he directs the attention of the reader in the present article to the constructive value of certain extraneous factors in the driving environment which have heretofore generally been regarded as driving liabilities and contributing to lowered driving efficiency.*

INTRODUCTION

THIS study was originally set up to investigate visual efficiency of the driver in the field of vision ahead. It presented a rather unusual task in experimental psychology and had to be carefully considered before a suitable design could be established for handling the problem.

At the Driving Research Laboratory at Iowa State College a special driving booth has been developed to simulate driving conditions for various types of studies in which it is necessary to standardize the environment. Since it is impossible to control the conditions found on the roadway from time to time any attempt to set up outdoor experiments would be enormously expensive and difficult to conduct. Consequently advantage was taken of the driving equipment having been developed at Iowa State College for the past several years. The first model was built in 1928 at the Ohio State University as an eye-foot-hand coordination apparatus. The second model was built at Iowa State College in 1930 and is known as the drivometer. The third model was built in 1934 and has been extensively used with some modification by the American Automobile Association and others. The fourth model was developed in connection with this experiment and it has been described in general detail. It is essentially an air conditioned booth in which the controls of an automobile are maneuvered by the subject in such a manner that various types of stimuli may be presented to determine their effect on driving efficiency.

Address: Dr. A. R. Lauer, Director, Driving Research Laboratory, Iowa State College, Ames, Iowa.

NATURE OF THE STUDY

The first phase of this study was made as a pilot run in which reaction time to an electric train moving in from the side was used as the criterion of interference. Results showed no appreciable effect when signs were introduced on the highway as determined by a careful analysis of the records of 50 persons with respect to reaction time.

The regular experimental study was designed so that a number of factors such as steering, noticing of train moving into the environment, the change of traffic lights or the change of highway directions, signs or instructions to the subject were used as stimuli. These were presented on a drum directly over the roadway. The criteria used were time to respond to changes, efficiency in staying on the road, efficiency of observation with respect to highway markers, roadside features and the subject matter displayed on signs.

RESULTS

The results from 120 subjects in four comparison groups showed a slight advantage for the driver when there were signs on the roadway, although the difference was not much greater than 10 per cent. Questions were asked regarding what the person had noted and what he had remembered about the signs. It was found that his general observation of objects appearing along the highway was about the same whether or not the signs were present. To make application of this principle one might infer that the presence of advertising signs and similar stimuli along the highway would in no way detract from the appreciation of the general beauty of natural scenery.

THEORY AND APPLICATION OF RESULTS

Results appear to be consistent with other studies and the psychological theory of human behavior and performance in general. Other investigators have noted that it takes a minimum amount of stimulation or variety of things to see, hear, or otherwise sense, for maximum efficiency. It has been found that a certain amount of noise helps in industrial production. Music has been found to add to the production of some plants.

So far as automobile driving is concerned it has been taken for granted by some that one needs to keep his eyes riveted on the road all the time for maximum safety. Psychologists know that this is the quickest way to hypnotize a person with other conditions being satisfactory. You simply concentrate the attention and keep it on one object for a time and the subject falls asleep. The results of our studies indicate that the addition of a considerable amount of extra stimulation to the driving situation actually helps the driver keep alert and certainly has no detrimental effect on his efficien-

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cy. In fact there was a slight beneficial effect shown by the introduction of extraneous stimuli.

CONFIRMATION OF RESULTS IN FIELD STUDIES FROM MICHIGAN

The so-called practical man is usually not satisfied with a laboratory experiment and wants to see something done outside of the laboratory which will justify the conclusions drawn from any results obtained. This was not practical to do in Iowa at the time. However it was possible to make a comparison with a study made in Michigan on the road leading from Toledo north which had been thoroughly analyzed by the Michigan Highway Department in cooperation with the Bureau of Public Roads. Our laboratory had nothing to do directly with their study and the Michigan Highway Department was kind enough to give us their correlations and data for further analysis.

The procedure in the study made by the Michigan Highway Department is somewhat detailed and cannot be explained completely here. It was reported in a bulletin prepared by that department and amounts to evaluation of all signs, both at intersections and between intersections, with respect to association with accidents. A carefully designed study, it also included checking where accidents occur over a period of years with relation to these signs.

A number of analyses were made, the last one of which was done by correlation techniques. While the investigators did a very thorough job, they had not thrown the whole matrix of relationships into the analyses by means of multiple correlation technique using all of the variables but it was thought advisable to include all available data in order to establish basic relationships.

With permission to use their data the complete battery of correlations was used and the normal equations computed to find out which roadside features studied were most closely related to accidents. The following possible sources or factors related to accidents had been considered. We shall name them in arbitrary order as they were given to us by the Michigan Highway Department. No assumptions were made as to the order given and this is in no way related to their final arrangement with respect to closeness of relationship.

Intersection Sections

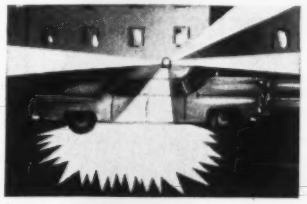
We shall first consider the various features studied and their relation to accidents near intersections. These were called *intersection sections.* The factors were (a) taverns, (b) gas stations and common garages, (c) stores, (d) restaurants, (e) other establishments, (f) private drives, (g) design features including curves, banking, etc., (h) advertising signs and (i) vehicle miles or the number of miles travelled past the signs per day. These variables were correlated against accidents as the criterion. A multiple correlation to determine the order of relationship was computed. The order of relationship found was as follows, although some of the indices were insignificant and even in the opposite direction.

The highest and a probably significant relationship to *intersection sections* was taverns; the second highest was vehicle miles or miles travelled past the intersection; the third one was gas stations; the fourth one was other establishments which included a miscellaneous category developed by the Michigan Highway Department for purposes of classification; the fifth one was stores; the sixth one was design features; the seventh one was advertising signs which was very nearly zero; the eighth one was restaurants which was very nearly zero; and the ninth was private drives which was also practically zero. This summarizes quite well the results so far as intersections are concerned.

The multiple correlation coefficient of all of these factors with accidents was .87+ which in the ordinary terminology of statisticians measures about 77 per cent of the factors involved. In other words, all of these combined accounted for about 77 per cent of the features which were correlated with accidents. It should be noted, however, that advertising signs, stores, and restaurants yielded indexes so nearly zero as to indicate no relationship at all.

Non-Intersection Sections

Next by taking the same set of data the Michigan Highway Department had furnished we took the *non-intersection sections,* that is, the sections of highway located between intersections. In this way they had the same general classification including taverns, gas stations and common garages, stores, restaurants, other establishments, private drives, design features, advertising signs, and vehicle miles as they were correlated with accidents. Without going into the various intercorrelations it suffices to say that a multiple R was



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computed for these which gave +.82 indicating approximately 66 per cent of the factors measured between intersections which were related to accidents. This is the conventional way to interpret such results.

In checking out for the relative order of relationships the first one was vehicle miles; the second, private drives; the third, other establishments; fourth, restaurants; the fifth, taverns; the sixth, gas stations; the seventh, design features; the eighth, stores; and the ninth or least related was advertising signs. It is notable, however, that the coefficients for both stores and advertising signs were negative or in the negative direction indicating that if there was any relationship at all they were slightly beneficial.

GENERAL SUMMARY

This in general summarizes the results of a three-year study indicating our results and how they check with studies made of the actual situation on the highway. We have had a great many calls from different parts of the country for the basic results. We are quite certain changes have been effected in the proposed regulations for controlling or eliminating signs along certain types of roadways. One large insurance company states that out of 100,000 accidents in all parts of the country they have no record of an advertising sign being alleged to be a cause of accidents. The only reasonable conclusion is that the claim that advertising signs cause accidents is not true. ★★★

COMMUNITY LEADERSHIP IN CALIFORNIA SETS THE PACE

A pledge of support for the establishment of positions in the California Youth Authority for two consultants on community councils has come from a group of leaders active in the creation and development of California Community Councils. The council group concluded that community leaders anxious to help children and youth deserve assistance from such professional staff members. As a result, the Youth Authority has included provision for two community council consultants in its 1959-60 budget.

Council leaders, at a meeting in Los Angeles, concluded that the councils should be encouraged to concentrate on the prevention of juvenile delinquency. They agreed that the continuation of California's unprecedented population growth, with resulting disruption in family life, makes delinquency prevention the paramount need. Participants in the meeting noted that some of the State's 300 community councils are active in such diverse community undertakings as the creation of parks and the construction of swimming pools.

The council leaders who reaffirmed their support for the positions included Kenyon Scudder, Field Services Director for the Osborne Association, Berkeley; Dr. Martin Neumeyer, Professor of Sociology at the University of Southern California; three past Presidents of the California Community Councils, Dr. Marion Herriott, Los Angeles, Mrs. Julia Von Preissig, San Diego and Mrs. Robert Miller, Burbank, and Mrs. Pat Clark, Sacramento, the current President.

A System for Vehicle Rearlighting

By L. J. van der Meulen

EDITOR'S NOTE: *Dr. van der Meulen is a veteran of 18 years of active police service in European police organizations. After obtaining the higher police officer's diploma, he became Lieutenant of Police in the Municipal Services. Two years after this appointment he was dismissed and arrested by the Nazi occupation forces in 1943. He escaped via Belgium, France, Italy and the Balkans toward Turkey and Syria, joining the Allied Security Service in Egypt. Later Dr. van der Meulen went to England where in 1944 he became Executive Chief of the Netherlands Government in Exile Security Service. After the war he was appointed to the National Police. During a leave of absence from 1947-49 he studied at Louvain University in Belgium where he obtained the doctoral degree in Criminology. He has visited and studied police systems in the Middle Eastern countries. Since 1950 he has been an Instructor in Intermediate and Advanced Criminological Sciences and from 1954, District Commander with the National Police at Leyden. He is President of The Hague Provincial Committee on Traffic Enforcement and Education and is presently on a six months study mission for the Netherlands government in Germany.*

THE peace officer who handles traffic accidents at night soon learns that the red lights and flares he sets out to caution traffic seem to have little effect in reducing the speed of traffic and instilling caution in drivers. As a rule, the lights and flares are visible at reasonable distances, yet many drivers apparently pay little or no heed to them.

In searching about for a reason for the failure of many drivers to heed the warning lights about the scenes of accidents, it may be assumed that a surfeit of any physical stimuli tends to weaken its effect. It would then follow that too much RED color would tend to reduce the effectiveness of red as a warning signal. Every vehicle has at least two red taillights. Some of the recent models have four red taillights. Since red is a danger signal– a symbol indicating an obstruction, a fixed obstruction in the minds of most– what is the logic behind two or more red taillights? Should a fast moving vehicle be considered a source of danger from its rear? Logic would have it that a vehicle shows one red taillight because it indicates an obstacle on the road for passing traffic. But why should the second taillight be red?

It would be more logical for a moving vehicle to show one red and one green light. This combination indicates by its red light that there is an obstacle in the roadway, and by its green light that this obstacle is moving. The stopped or parked vehicle, a truly dangerous obstacle to moving traffic, ought to have two red lights and no green light. This would enable vehicular traffic to distinguish at once whether a slow moving or stopped vehicle is ahead or whether the forward vehicle is moving beyond a designated speed.

Since drivers are accustomed to only red lights on the rear of vehicles, a parked or stalled car often surprises the driver and requires immediate, unanticipated maneuvers. If moving vehicles show one red and one green rear light, this combination will indicate to the motorist that there is a moving vehicle ahead; if the forward vehicle shows only one red or two red, and no green light, the danger signal becomes marked because the "appeasing" green light is missing from the normally expected combination.

When the driver sees red and green taillights ahead–which would be ordinary–he would develop an expectancy for this color combination. Should he then see a single red or double red light, and no green light, the marked disappearance of the green light from the expected combination will make the red light a more formidable signal. The "deadening" effect of a continuous view of red taillights as is the case now will be greatly reduced.

On our modern freeways and expressways the slow-moving vehicle, the accelerating or decelerating vehicle, may be considered as much an obstacle to fast moving traffic as a parked or stalled vehicle. Therefore it would appear reasonable that vehicles that are stopped or are traveling at speeds under, let us say, twenty miles per hour will show only red taillighting. As soon as the accelerating vehicle moves faster than the twenty miles per hour, the second red taillight would switch automatically to green. The reverse would be true where a decelerating vehicle reaches the twenty mile per hour point, the green light automatically switches off and the red light remains, and/or a second red light comes on.

Motorcycles would also be equipped with the double color rear lights, one above the other at sufficient distance to prevent the mixing of the red and green colors. The result would be that all vehicular traffic moving at twenty miles per hour or less, or stopped, would be illuminated with one or two red taillights while traffic moving faster would be illuminated with one red and one green light.

The present system of rear lighting of vehicles is dangerous since there is no difference in the lighting of slow moving or parked vehicles. The red light is meant to indicate STOP–it is an obstacle light. But as a rear light for a vehicle it tends to function quite differently.

Address: Dr. L. J. van der Meulen, District Commander, Netherlands National Police, Leyden, Netherlands.

The red rear lights of the vehicle ahead become points of orientation upon which one establishes one's driving. Especially on highways does one rely on them. The red taillights of a vehicle ahead is a point of support or direction as long as visible. Instead of danger signals, the red rear lights have become, more or less, guiding lights. But they operate alike whether from a parked, stalled, slow-moving or fast-moving vehicle. To the degree the driver has relied on the red lights of the forward vehicle as guiding lights, to that degree will it take the driver more time to become aware that his guiding lights are in reality danger signals of a slow-moving, parked, or stalled vehicle. An added factor is the degree of awareness or consciousness of the driver. It is well known that the driver's awareness tends to decrease with the length of time spent in driving, the lulling effect of routine behavior. Now, should the driver have to switch over from his interpretation of the taillights ahead as support and guiding lights to an interpretation of them as danger lights, the reaction time is reduced as well as the appropriateness of the reaction itself.

It is known that if the same stimulus, and this includes the red taillight as a stimulus, has been acting upon the senses for a prolonged period, the awareness of that stimulus is reduced. Therefore, the red-lighting of obstacles and parked or stalled cars are that much less attention catching. With the red-green system or rear lighting, this reduction of awareness and response to red as a danger signal would be minimized.

The new model cars have not only increased the number of red rear lights but their intensity. This might make for greater visibility of the rear of vehicles, but not for safety since constant observation of so much red only dulls the senses for this color in an emergency situation. Only if different colors are used in rear lighting, such as red and green, will the brighter and bigger lights have their proper effect. For with contrasting colors, the difference becomes more pronounced with increase in size and intensity.

Another advantage of red and green rear lighting is that the effect of the stop light nearest the green light is strengthened because the red stop light contrasts markedly with the green. At present, a decelerating vehicle has no warning light unless brakes are applied. However, with the green light switching to red at twenty miles per hour there is an automatic warning signal without the use of the brakes.

One other advantage should be mentioned. If an accident occurs which blocks the roadway, the red-green rear lighting system would mark the situation. In most accidents rear lights continue to function, and unless the vehicles are turned completely—the green light will automatically change over to red indicating an obstacle. With the present rear lighting a situation of this kind does not distinguish itself from the normal presence of a vehicle ahead.

As to the placement of the one rear light that switches from red to green or green to red, it would seem that it should be on the left rear side of the vehicle. This side is earliest visible in lined traffic. Other colors than red and green may be considered for rear lights, but it must be kept in mind that a system of rear lighting should approximate the existing condition and the present meaning of colors in traffic. In the system proposed, the rear lighting change is minimal in that only one color change occurs and that when reaching a speed above twenty miles per hour.

Experts in the field of automotive engineering have been consulted as to the feasibility of the system of rear lighting discussed in this article and have stated that it presents no real problem. Therefore, it appears that a system of rear lighting for all vehicles that takes into consideration what is now known about drivers and vehicles should no longer be neglected. ★★★

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The Police Department of New York City has awarded scholarships totaling $40,000 to 72 of its members to pursue academic and professional studies. The recipients range from probationary patrolmen to a deputy inspector who have demonstrated aptitude and leadership potential. One will engage in the studies leading to a master's degree; 11, bachelor's degrees; and the other 60, courses in public and police administration.

Into Tomorrow

By Chief Bernard C. Brannon

EDITOR'S NOTE: *Chief Brannon entered police service with the Kansas City, Missouri Police Department in 1932. He advanced through the ranks to head the Missing Persons Bureau of the Detective Department in 1936 when he obtained a leave of absence to continue his education, taking his LL.B. degree from Vanderbilt University in 1939. Returning to the Department, he continued his law enforcement work until called to the Naval service in 1943. As a commissioned officer in the U. S. Navy Chief Brannon saw action in the Pacific Theatre and served as District Commander of Military Government in Okinawa. Subsequently he held the position of General Investigator for the Navy Department, Bureau of Aeronautics, Washington, D. C., until 1950 when he was appointed Associate Professor of Police Science and Director of Law Enforcement Educational Activities on the staff of the law school of the University of Missouri. Granted a leave of absence in June of 1952 he became Kansas City's Chief of Police.*

Chief Brannon has been a contributor to professional journals; lecturer at Northwestern University Traffic Institute, Southern Police Institute, Iowa University Institute of Public Affairs, and four times guest speaker at the IACP conventions.

He is well known in professional police circles across the country, particularly for his outstanding work and publications on the one-man patrol system.

Chief Brannon is a member of the U. S. Supreme Court Bar, the Federal Bar, the Missouri State Bar, the American Bar Association, International Association of Chiefs of Police, Veterans of Foreign Wars, Military Order of World Wars, Society for the Advancement of Criminology, Phi Delta Phi legal fraternity, and is listed in WHO'S WHO IN THE MIDWEST *and* WHO'S WHO IN AMERICAN EDUCATION.

In the following article based on excerpts from his 1957 address to the IACP Convention in Honolulu, Chief Brannon brings to the attention of readers of the Journal the critical importance to the police field of the attainment of professional standards through the further development of police training programs at college and university levels and the establishment of state police examinations on a voluntary basis.

A complete text of Chief Brannon's address and a copy of his proposed Uniform Law Enforcement Examination Act may be obtained by writing to the Kansas City Police Department.

TODAY in our American police world we have a problem of concern to all of us to which a solution must be found. That problem is how to obtain the men and women necessary to carry on the heritage of good law enforcement. It is the primary problem of the modern police administrator. It faces all of us. It calls for discussion and treatment.

Address: Chief Bernard C. Brannon, Police Department, Kansas City, Missouri.

Our police departments, *quasi*-military in nature, have more or less borrowed from the military the word *recruit*. When we search for new personnel, we are engaged in a *recruiting* program. The word is taken from the French *recroitre*, "to grow again," or "a new growth." And, indeed, we want and need a new growth of police officers capable of discharging with efficiency the multiplying duties laid upon them today and which will grow heavier tomorrow.

Our problem is not primarily one of getting enough men, but of getting enough *good* men. What a "good man" is in modern American policing is a changing concept. It is changing because of the changing times, which add new complications in the rendition of the police service, a phase of government already overtaxed and overburdened. We should realize that the role of compatible existence in today's society is intricately cast in a web of growing confusion for every individual, a quandary, perhaps, that comes from new pressures forming at the threshold of a new age. In this setting the policeman's role is accordingly amplified in importance and in the spread of service he must supply the people.

Why is this a new era? What is the evidence? One has only to look at the swelling urban populations where adjustment of the individual to new situations is a prerequisite to survival. There are sociological conflicts begging for solution; there is the approaching atomic evolution, where a new source of power threatens death and destruction on the one hand or offers an industrial utopia on the other. The task of man living in harmony with his fellow man has always been with us, but the intensity of the task today totals up to increasing crime and the need for regulation of conduct unequalled in the past.

The policeman of today dispenses police service within this background of growing demand that would appall the law enforcement man of yesterday. He must know and utilize much of the skills and knowledge possessed by professional people in the fields of sociology, economics, psychology and many other categories of learning. We all know that the demands upon the policeman are so varied and great that his work has ascended to a true professional calling of its own, one that matches any of the honorable professions in the need for exceptional study and training requisite for membership.

The policeman did not create this new profession; it

was thrust upon him. Proof that he did not create the new profession is that in large measure he does not and is not prepared to discharge on a professional level the duties of his office. This is not to disparage our current efforts, but is only a frank acknowledgment of the existence of a taxing and challenging profession without sufficient professional people to practice it.

If we accept the premise that policing is a profession requiring advanced study and training (and we must agree to this or else confess that it is not a professional calling) where are the professional men from whom we can recruit our new policemen?

We must admit that seldom do we employ policemen as such. We acquire the best available men and make policemen of them. We are, therefore, a profession without professional people to employ in getting our work done!

If you will seriously consider this truth, you will recognize that as an administrator of an organization which requires professional services, you have assumed a burden that administrators of other governmental units composed of professional people do not bear. The legal department of the city does not have to reach out to the young truck driver, the salesman, the mechanic, the clerk and others in the realm of honorable but professionally untrained ranks for its lawyers. The hospital does not seek its interns and resident physicians, its technicians and nurses of skillful category, from among the levels of totally untrained men and women. The engineering office does not consider for employment those who have no preacquired training and knowledge. Why should we of the police field have to do so?

Yet, to discharge duties of a professional nature, we are called upon to draw from human resources of raw material, untrained and lacking much basic knowledge, and thereafter manufacture from their midst the law enforcement professional man. Our present double obligation is, therefore, (1) to select men for training as policemen, and (2) to train and develop them to a reasonable state of efficiency.

In the other professions, medicine, law, teaching, and the like, our educational institutions, our colleges and universities, perform three significant functions which we as police administrators now assume ourselves: (1) They recruit for professional training sufficient numbers of capable persons to man the professions. (2) They train and develop these recruits to an approved scientific, technical and professional competence. (3) They graduate those who possess the knowledge, technical abilities, personal character and social outlook required for the practice of the professions.[1]

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[1] U. S. Department of Health, Education and Welfare, Office of Education publication, *Education for the Professions*, p. 9, 1955.

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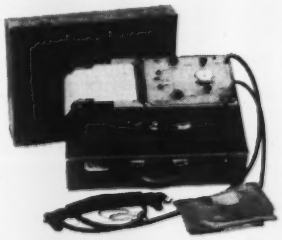

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those who have failed to provide us with a proper pool of competent manpower, we might understandably be resentful and discouraged. Yet there is a good reason why we are not.

The standards we have set for membership in our police departments of today represent a remarkable advancement over the loose qualifications of yesterday. Physical propensities, stature, agility and courage, were the accented qualities in earlier police employment; usually little stress was laid on matters of education or mental prowess. As the police service was extended gradually from the horse and buggy to the mechanical horsepower era, from towns of scant population to heavy urban gatherings, and from small concentrated geographical areas to sprawling city limits, the police administrator looked longer and more closely at his recruits.

Where even a grade school education had been an academic luxury to many, the theme of the times changed to the expectancy of a high school diploma as a minimum educational achievement. It was with the rise and spread of higher standards of formal education in America that the police departments were able to require more basic learning from their recruits.

The number of our colleges increased and their doors were opened wider to admit those of modest means. College attendance was losing its exclusive air when World War II broke out. Following the War, the government policy of encouraging higher education by footing the bill for our civilian soldiers smashed the concept that college was only for a few. By 1952-53, the colleges and universities of America were conferring degrees on 374,189 students. Of these, 244,920, or 64% were in the undergraduate and graduate professional fields.[2]

With the higher birth rate of the war years, our colleges and universities are now preparing for a record breaking rush of students. Our educational facilities are being utilized fully, some even to overflowing. The vacant seats in the classrooms are gone and selectivity of students seeking admittance is becoming keener.

This is good news to the police administrator, for it promises a greater pool of manpower with college level educational qualities. It gives us hope that the majority of police departments throughout the nation can raise their recruiting standards from the requisite high school education to that of two years or more of college. We shall at least be able to employ police officers whose educational background is on par with the educational norm of the public served.

But this is not enough if we would fill our police profession with men and women of professional calibre. We seek more than recruits with general college training; we want men complying with the first earmark of a profession—the extended period of specialized study and training required to learn the methods of service and to develop the necessary skill in their application.

I have long argued for a national association which would dedicate itself exclusively to initiating and fostering standard curriculums for the police profession.[3] Our colleges and universities must be shown the way by us, and then they will take over the recruiting burden of supplying a source of professional applicants from which we, like other professions, can draw our officers.

Today the alert police administrator plans his recruiting efforts. He goes out into the youthful groups and argues the dignity and benefits of the police service. He tries to sell his profession to the young. He campaigns among those who are yet in their formulative years—in high schools, in colleges, and before youth groups where first impressions are so valuable.

If his police department is still restricted by the old idea of employing only present residents of his city, he works to remove the obstacle as obsolete and unwise. Where local manpower is deficient, the police administrator must be free to draw from other areas. For this reason the campaign for new recruits should not be localized.

Today there are 15,300,000 Americans between the ages of eighteen and twenty-four, the lowest figure for that age group in a generation. The causative factor was the low birth rate of the depression days of the 30's. But look what is coming! By 1961, there will be 17 million persons in the eighteen to twenty-four age group. By 1965, there will be 20 million, and by 1975, more than 27 million.

We must do the groundwork now for the years ahead. A prediction was made that by 1968 there would be a vast excess of college graduates over the opportunities for work in their specialized fields.[4] It is evident that the supply of professionally trained students will be greater than ever, and we must undertake the task of seeing that our police profession claims its share of this growing crop of specialized manpower. If we sit idly back and do nothing to establish nationwide curriculums for law enforcement students, we shall pay the penalty with police departments that cannot compete with the times.

The combination of two factors is necessary for our professional success: (1) we must create the desire on the part of young people to study policing. (2) We must persuade our colleges and universities to establish law enforcement curriculums and assist them in their endeavor. How, then, can we achieve these two objectives?

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[2] U. S. Department of Health, Education and Welfare, Office of Education, Circulars Nos. 380 and 418.

[3] Bernard C. Brannon: *A New Profession Is Calling*. Kansas City, Missouri Police Department publication, 1955.

[4] U.S. Department of Health, Education and Welfare, Office of Education publication, *Education for the Professions*, p. 10, 1955.

Before you last year I spoke of these two factors.[5] I asked for approval of the idea of a state examination for law enforcement personnel and suggested that it be on a voluntary basis. The purpose of such an examination is threefold: (1) It is a recognition by the state of the dignity and value of the police service. (2) It identifies the subject matter to be studied and mastered within the police profession and encourages the establishment of forums where such specialized knowledge can be obtained. (3) It provides an incentive to the potential law enforcement officer by holding out a challenge to be accepted by him before entrance into the police field.

Licensure by the state is an old practice that had its ups and downs. After the Revolutionary War, it was first applied to medicine in some few states. But in the years that followed the idea lost favor with the public, partly due to a laissez-faire philosophy of social organization and individual interests that frowned on regulation of any sort. Prior to the Civil War, attempts were made to license other professions but they met with disfavor. However, soon after the conflict between the states, professional associations grew and the public attitude toward licensure began to change.

It was the professional associations themselves that sought state intervention in their affairs. They persuaded the states that in order to protect the public against incompetent and unscrupulous practitioners, the state should attest the qualifications of the individual by examination.

Most state boards examining in professional fields discovered that an examination alone was not enough. A requisite to taking the examination in the form of graduation from accredited and recognized colleges and universities was needed. Should we not heed this path to professionalization that others have traveled? Should we arbitrarily proclaim we can do it differently?

The license to practice a profession differs from the license to do business. Taxation is often the purpose of the latter, but the professional license is a public declaration of the ability to render professional service, and its purpose is the safety of the public and the betterment of the public welfare.

If the field of policing constitutes a profession, if we must have professional men to serve in that field, then how can we avoid the precedents of professional progress established by the other groups? We can answer much of our recruiting problems of today by wisely preparing for tomorrow. We must strike at those concepts of American policing that bog us down in the mire of yesterday's appraisal of the policeman's work. We must awaken to the new era descending upon us.

As the strands of railroad steel across the mighty Missouri passed progress from East to West, so too can we span all barriers with the lighted torch of police progress and hand it burning brightly to the policeman of tomorrow. ★★★

[5] Bernard C. Brannon: *The Set of the Sail.* A speech delivered by Chief Brannon before the 1956 annual convention of the International Association of Chiefs of Police.

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Noted English Case Ends With Acquittal of Dr. J. Bodkin Adams

THE jury found Dr. John Bodkin Adams not guilty of the murder of Mrs. Morrell, who died at Eastbourne on November 13, 1950. They reached their verdict in forty-four minutes on April 9, the seventeenth day of the longest murder trial recorded in Great Britain. In his summing-up the Judge referred to "a most curious situation, perhaps unique in these courts," that the act of murder had to be proved by expert evidence; and again: "the medical evidence is the essential part of the case, and perhaps the crucial part."

Mr. Justice Devlin began his summing-up on April 8 by defining murder as "an act, or a series of acts, done by the prisoner which were intended to kill and did in fact kill." It did not matter for this purpose that the patient's death was inevitable and her days were numbered. If her life was cut short by weeks or months it was just as much murder as if it was cut short by years.

"You have heard a good deal of discussion during the evidence about the circumstances in which doctors might be justified in administering drugs which would shorten life. Cases of severe pain were suggested and also cases of helpless misery. The law knows of no special defence of this category. But that does not mean that a doctor who is aiding the sick and dying has to calculate in minutes or even hours, perhaps not in days or weeks, the affects on a patient's life of the medicines which he will administer.

"If the first purpose of medicine—the restoration of health—can no longer be achieved, there is still much for the doctor to do, and he is entitled to do all that is proper and necessary to relieve pain and suffering even if the measures he takes make incidentally shorten life. There are cases in hospital where a doctor prolongs or shortens life by hours or perhaps even longer. The doctor who decides to administer the drug or not is not thinking in terms of hours or months of life. He could not do the job if he were. If, for example, a doctor has done something or omitted to do something and death occurs, say on the 11th or 12th or on the Monday instead of the Tuesday, no one with common sense would say the doctor caused the death. They would say the cause of death was the injury or whatever it was that brought her to hospital. It remains a fact and remains the law that no doctor, nor any man, has the right to deliberately cut off life. I say it to you so there can be no mistake."

After telling the jury that the burden of proof was on the prosecution, the judge said that they had to decide between the medical opinions as they would in getting conflicting medical opinions over a relative who was ill. They had to make up their mind which was most likely to be right. Referring to Mr. Lawrence's advice that Dr. Adams should not go into the witness-box, the judge said: "It would be utterly wrong if you were to regard Dr. Adams' silence as contributing in any way towards proof of guilt. It does not and it cannot. The prisoner who goes into the witness-box goes there for his own benefit and his own defence." Turning to Mrs. Morrell's will, the judge pointed out that what Dr. Adams got was the oak chest and silver valued at £276, which compared with £300 to the night nurse and £1,000 to the chauffeur. The jury might bear in mind that the usual mark of undue influence was that the influencer was able to extract something which he ought not to have got.

"When you find that the bequest, so far from being something in the opinion of the relatives that Dr. Adams ought not to have got, Mr. Morrell thinks it fair to add something to that which his mother had bequeathed, it may help you to decide whether this was really a case of undue influence excercised by Dr. Adams."

Discussing the discrepancies between the amounts of drugs prescribed and the amounts shown in the nurses' note-books as administered, the judge said it seemed clear that the special injections could not possibly account for the difference between them. Was there a channel, he asked, down which drugs which were prescribed were improperly disappearing? The jury might think or suspect that someone was dealing dishonestly with them, and that that someone must either be Dr. Adams or one of the nurses.

"If you were ever to get so far in your investigations as to begin to wonder which of the people is most likely you will, in fairness to Dr. Adams, bear in mind that two of the nurses have told lies about this matter in the witness-box. One of them lied about where the drugs were kept locked up—that was Nurse Stronach—and one of the others,

either Nurse Mason-Ellis or Nurse Randall, lied about the conversation on the train in which Nurse Randall is alleged to have said: 'Don't say that, or you will get me into trouble.'"

The prosecution had to satisfy the jury that death was not due to natural causes. "It is a most curious situation, perhaps unique in these courts, that the act of murder has to be proved by expert evidence," and of the doctors' evidence he commented: "Men of science cannot always give precise, clear, and unqualified answers, particularly if they are dealing with an illness which occurred years ago at which they were not present."

QUESTION OF INTENT

The court adjourned, and on its resumption the following day, April 9, the judge said the medical evidence was the essential part of the case, and perhaps the crucial part. The jury were entitled to accept the evidence of Dr. Douthwaite and not to attach much to the contrary opinions of Dr. Harman, and they were entitled to say that Dr. Ashby's real conclusion was that the drugging was an unjustified act in the medical sense which accelerated death. That was the issue on this point which they had to determine. If they decided certain points in favour of the prosecution, then they would have to deal with the question of intent. Intent was something that existed in a man's mind. Apart from his own evidence it could only be proved by inferences that were drawn from his own acts, but his own evidence must be welcome. People did not normally intend things unless they were going to benefit from them. Therefore the jury must examine what was the motive in this case. Mr. Lawrence had said that the suggestion that the doctor had anticipated Mrs. Morrell's death by a few days or few weeks for a chest of silver valued at £270 was ludicrous.

"'Ludicrous' is a strong word. But it is a strong point, and it is a point which requires an answer. I listened carefully to the Attorney-General to see what the answer was. I didn't hear the answer."

The judge said a further point for the jury to consider was the false filling up of the cremation form. "I say 'false' advisedly, for it is a matter for you. But it seems to me that it is false." The answer which Dr. Adams had given on the form—"Not so far as I am aware"—had to be set side by side with the answer given to Superintendent Hannam, and that answer made it plain that he knew or thought, he was going to get the oak chest and the car.

As to the nurses' note-books, the judge said that the Attorney-General in his address had asked where they had come from, and in whose interest it was to keep them. While the judge would not say that there was a mystery about it, it was something which one would have liked to have known the answer to.

Finally, the judge said there were three points that the jury would have to consider. The Crown must satisfy them that Mrs. Morrell did not die of natural causes; that, from the medical evidence, the act of killing was something that was capable of being murder; and that the act was committed by the accused with the intent to murder. "Not infrequently I have heard the case presented by the prosecution that seems to me to be manifestly strong, and sometimes I have felt it my duty to tell the jury so. I do not feel I should hesitate to tell you here the case for the defence seemed to be manifestly a strong one, and you must not find for the Crown until you have weighed and subjected and ruled out all the evidence and the arguments put before you on behalf of the defence. It is always the same question—is the case for the Crown strong enough to carry conviction to your mind? It is your question and you have to answer it." *British Medical Journal.* ★★★

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Criminal Litigation in Iowa, 1935 to 1954

By Walter A. Lunden

EDITOR'S NOTE: *Dr. Lunden is Professor of Sociology in the Department of Economics and Sociology, Iowa State College, Ames, Iowa, and a prolific researcher in the general area of criminal justice administration. In this article written exclusively for* POLICE, *he traces the changes in the volume of criminal cases processed by the courts in Iowa during the twenty year period from 1935 to 1954, and considers the factors which brought about these fluctuations in case load. The reader will also find the last section of the article especially interesting. Here, Dr. Lunden exposes the existence of a pattern in the variation of the severity of penalties assessed by the courts during this period. It would be interesting if parallel research could be undertaken by workers in other states.*

AFTER an offender has been arrested, brought to court, charged and tried what happens as an end result of criminal litigation? What is the residue from the "Mills of Justice"? Is justice done? A case in criminal court has many far-reaching social involvements. First, the offender by his actions has caused the whole socio-legal machinery in a society to be set into motion in order to adjust a real or a supposed dereliction. The doer of the wrong is a disturber of the peace. The customary and usual course of human relationships have been fractured by an act. Secondly the offender knowingly or unknowingly has not been able to make a normal adjustment in his community. In the strict sense, he is a male-factor and the trial is an evidence of a disordered relationship. Thirdly, there is the person or persons who have been offended. The court, in attempting to mete out justice, may overlook or neglect the harmed person. Justice therefore, may be done but justice does not always restore the damage to the offended person.

In spite of the fact that the number of cases which come before a court do not constitute an accurate measure of the amount of crime in a state these same cases do reflect the social conditions within a given area. In general, when the number of crimes committed increase the number of cases in criminal courts rise. (The number of persons charged and tried in court, however, is only a small per cent of the total known crimes. In 1952, the Federal Bureau of Investigation reported 432,834 major crimes known to the police in 208 cities with a population of more than 25,000 persons. In the same cities for the same year, 95,424 persons were charged and held for prosecution. The figure represents about 22 per cent of the crimes known to the police in these cities. In a very broad sense, therefore, the number of cases in the courts in these 208 cities constituted about one-fifth of the number of crimes known to the police. For every 100 crimes known to the police, there were about twenty-two cases in criminal court.)

Apart from this overall relationship between crimes known to the police and the number of cases in court the amount of criminal litigation is important from the view-point of the actual load of criminal prosecutions that pass through the courts in a given year. They represent the actual amount of legal traffic which the courts must deal with in a given period.

Beyond this concern of the actual traffic of litigation the information is significant when the end results of the court procedure or methods of disposition of the cases are considered. If or when the types of disposition change within a given judicial system that variation warrants serious attention. The first part of the material under investigation, therefore, takes up the actual number of criminal cases in the courts of Iowa for a period of years beginning with 1935 and ending with 1954, for the State, as a whole, and by rural and urban areas.

THE CYCLE OF CRIMINAL LITIGATION

During the twenty year period from 1935 to 1954 the district courts in Iowa have tried 85,039 criminal cases or an average of 4,475 cases a year. In terms of a rate per 10,000 the amount is 17.1 cases per 10,000 inhabitants. The annual number of cases each year has varied according to the general social and economic conditions within the state and the nation. The twenty year period covers four years at the end of the Great Depression of the Thirties, the years of World War II and the post-war years. This time span encompasses years of serious economic disorders, a total war and the problems current in the post-war adjustment years.

From 1935 to 1954, the volume of criminal litigation in

[1] In carrying out this research the author has had the helpful cooperation of state authorities and boards. The Iowa Board of Parole has made available the annual reports on criminal statistics for 1935 to 1954 from which the data have been tabulated. Iowa State College through the Industrial Science Research Institute has made certain funds available to make the work possible. A complete report of the data appears in the author's publication *Offenders in Court and in Prison*, published in 1955.

Address: Professor Walter A. Lunden, Department of Economics and Sociology, Iowa State College, Ames, Iowa.

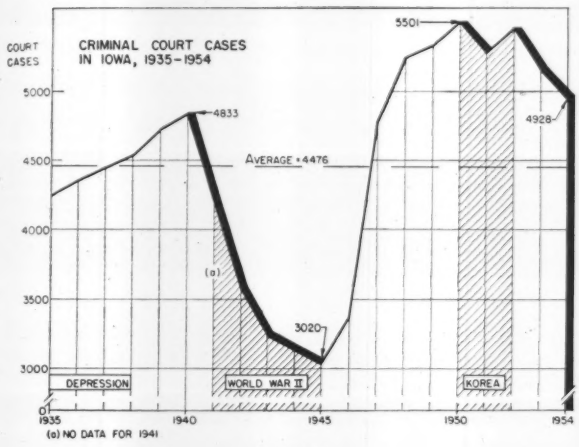

Chart I

Iowa has passed through a complete cycle with a high number of cases in 1940, a low figure in 1944 and then a high peak in 1950. From 1935 to 1940 criminal cases increased gradually from 4,262 to 4,837 or 13.4 per cent. Reports are not available for 1941 but in 1942, the second year of World War II for the United States, the number of cases declined to 3,579 and then continued to the low point of 3,020 in 1945 or 37 per cent below the pre-war year of 1940. In the post-war years, after 1946 the number of cases advanced rapidly reaching the all-time high number of 5,499 in 1950 or 12 per cent above the pre-war high in 1940. In 1952, the number of cases declined slightly to 5,452. By 1954 cases decreased to 4,928 cases (see Chart I).

This cyclical variation in the number of cases before the district courts in the state are traceable to conditions within the state and the nation. The decline in criminal court cases may be attributed to the fact that the nation called some men into the Armed Forces whereas others entered industrial production relating to the war in other parts of the nation. All this removed a very large proportion of the male population in that age group which is most frequently involved in criminal acts. The rapid rise of cases in the post-war years may be due to the general disorganization or the readjustment to the peace time conditions. The situation may be due also to the fact that the whole society was returning to a trend that had already begun in the pre-war years. Whatever these conditions may be, it is evident that the volume of criminal court cases in the state has reached an all time record height in the post-war years. If the present circumstances continue, the trend will continue. It may be, however, that the 1954 decline marks the return to the pre-war volume.

CRIMINAL COURT CASES ACCORDING TO THE DISTRIBUTION OF POPULATION IN IOWA, 1935 TO 1952

The volume and the rate of criminal court cases in the ninety-nine counties in Iowa has varied according to the rural and urban character or density of the population. In general, the more urban counties have shown a greater number of criminal court cases than the rural counties when the facts are reduced to a percentage or a rate.[2]

On the basis of the 1940 and 1950 census about one-third (35 per cent) of the population in Iowa lived in the 11 counties of Group V where 45 per cent of the criminal cases were tried during the seventeen year period (1935 to 1952). The rate per 10,000 was 21.1 which was higher than the rate for the state, 17.1 per 10,000 population. About 12.3 per cent of the people in the state lived in Group IV counties where 11 per cent of the criminal cases were tried with a rate of 15.5 per 10,000. The Group III counties contained 17.0 per cent of the population where 16.8 per cent of the cases appeared with a rate of 16.4 per 10,000. The Group II counties comprised 23.4 per cent of the total population of the state and had 18.4 per cent of the criminal cases and a rate of 13.2 per 10,000. The Rural-Farm counties in Group I included 12.3 per cent of the population and tried 9.0 per cent of all cases making a rate of 11.7 per 10,000 population. (See Chart II.)

POPULATION AND CRIMINAL COURT CASES BY COUNTY GROUPS IN IOWA

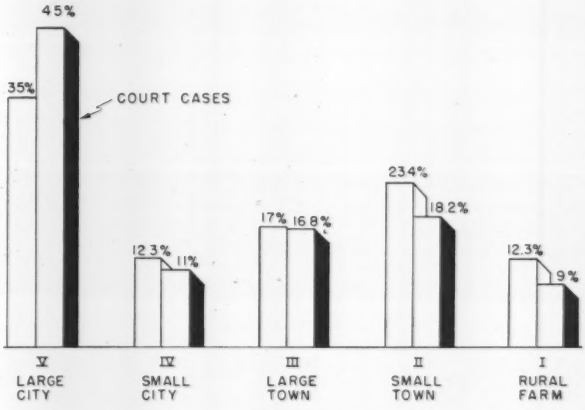

Chart II

[2] In order to examine the variations according to population the 99 counties in Iowa have been classified into five groups according to the size of the largest community in each county. On this basis there were twenty-three counties in which the largest community had less than 2500 inhabitants. These counties were placed in Group I and classified as Rural-Farm counties. There were thirty-four counties in which the largest community had 2500 to 5000 inhabitants. These counties were arranged in Group II and classified as the Small-Town counties. There were twenty-two counties in which the largest town had 5000 to 10,000 people. These counties were assigned to Group III and called the Large-Town counties. Also there were nine counties in which the largest community had 10,000 to 25,000 people. These were called the Small-City counties or Group IV. Finally, there were eleven counties in which the largest city in the county had a population of more than 25,000 inhabitants. These were placed in Group V and designated as the Large-City or Urban Counties. The individual counties in each group are shown in the table with the number of cases for each year from 1935 to 1952.

CRIMINAL COURT CASES IN IOWA, 1935-52
ACCORDING TO COUNTY GROUPS

County Group	Court Cases		Per Cent of Population (1940-50)	Rate per 10,000 Population	Persons Per Square Mile
	Number	Per Cent			
I (23)	6,794	9.0	12.3	11.7	27
II (34)	14,045	18.2	23.4	13.2	30
III (22)	12,677	16.8	17.0	16.4	36
IV (9)	8,246	11.0	12.3	15.5	56
V (11)	33,191	45.0	35.0	21.1	128
Total (99)	74,953	100.0	100.0	17.1	

On the basis of the rates per 10,000 criminal litigation was two times greater in the Large City counties of Group V than in the Rural-Farm counties of Group I. Except for the Group IV counties the rates increase directly with the size of the population.

THE DISPOSITION OF CRIMINAL CASES IN THE COURTS OF IOWA, 1935-1952

In the seventeen year period from 1935 to 1952, exclusive of 1941, there is information available on 73,268 criminal court cases in the state. Of the total 73,268 cases tried in court, 2.1 per cent or 1571 resulted in acquittals and 15.7 per cent in dismissals. In other words, 17.8 per cent of the cases terminated with no penalty for the defendants beyond the fact that they had been charged for an offense and required to stand trial in a court. This percentage of acquittals (2.1 per cent) is slightly less than the 2.9 per cent for acquittals which Professor Rollins M. Perkins found in his study of 608 jury cases in Iowa in 1931.[3]

DISPOSITION OF 73,268 CRIMINAL COURT CASES IN IOWA, 1935-52

Disposition	Number	Per Cent
Jail and/or Fine	41,620	57.0
Committed to Prison	12,064	16.4
Dismissed	11,508	15.7
Bench Parole	3,098	4.2
Suspended Sentence	3,407	4.6
Acquittal	1,571	2.1
Total	73,268	100.0

In 4.6 per cent (3,407) of the total cases the court granted a suspended sentence and the defendants, while convicted, were released from further judicial concern. In 4.2 per cent of the cases (3,098) the court issued an order for a bench parole. In these cases, the defendants were released by the court into the custody and supervision of some person, either a state parole officer, sheriff

[3] *Iowa Criminal Justice*, by Rollins M. Perkins, Studies in Criminal Law and Administration, University of Iowa, College of Law Studies, No. 1, May, 1932, p. 130.

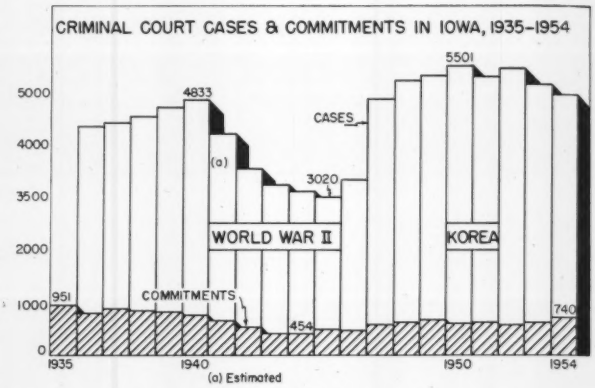

Chart III

or private citizen. Paroles and suspended sentences, therefore, comprised 8.8 per cent of all dispositions. The two remaining types of disposition involved sentences to prison or jails and/or fines. In 16.4 per cent (12,064) of the total dispositions the courts sentenced the defendants to prison and in 57 per cent (41,620) they announced a jail and/or fine sentence. When prison and jail and/or fines sentences are combined they constitute 73.4 per cent of the total dispositions by the courts.

The fact that only sixteen out of every 100 resulted in a prison term for all cases in criminal court may raise some question. In considering the percentage it should be kept in mind that there are many factors in the whole process of criminal litigation which may justify a less

CRIMINAL COURT CASES AND COMMITMENTS TO PRISONS AND REFORMATORIES IN IOWA 1935 TO 1954

Year	Court Cases	Commitments*	Per Cent Committed of Court Cases
1935	4262	951	22.3
1936	4356	794	18.3
1937	4436	894	20.2
1938	4512	839	18.6
1939	4709	765	16.2
1940	4833	753	15.6
1941	(a)	668	...
1942	3579	537	15.1
1943	3232	454	14.1
1944	3123	454	14.5
1945	3020	503	16.7
1946	3361	482	14.3
1947	4766	581	12.2
1948	5230	651	12.5
1949	5314	679	12.8
1950	5501	632	11.5
1951	5285	644	12.2
1952	5452	625	11.5
1953	5140	635	12.4
1954	4928	740	15.1
Total	85039	13281	
Average	4475	664	14.8

(*) Actual number admitted to prison.
(a) No data for court cases.

serious type of disposition than imprisonment. In the first place, a defendant is not guilty of the offense for which he has been charged until the court finds him guilty. Therefore, it must be assumed that a certain per cent of the defendants will be dismissed or acquitted because the facts in the case warrant such a disposition. Also, in certain cases the offense may not be serious enough to require commitment to prison. In some cases the defendant is a first time offender, therefore, the court may use a bench parole or probation. In addition certain lesser crimes may be disposed of by a jail term or jail and a fine. The overall purpose and function of the court is the determination of justice in each case. The end-result is justice, either to condemn the guilty or to acquit the innocent.

CHANGES IN THE DISPOSITION OF CRIMINAL COURT CASES IN IOWA FROM 1935 TO 1952

Within the period from 1935 to 1952, there has been a definite change in the types of dispositions in the criminal courts of Iowa. In general, fines and/or jail sentences have increased and prison sentences have decreased. In 1935, prison commitments comprised 22 per cent of all disposition but in 1952 only 13 per cent of the cases in court resulted in a prison term. In contrast to this, jail and/or fines made up 41.4 per cent of all disposition in 1935 but in 1952 jail and/or fines constituted 63.6 per cent of all dispositions. For the same years the percentage of cases resulting in dismissals decreased from 24 per cent to 13.9 per cent of the total. Also, acquittals declined from 3.7 per cent to 1.4 per cent. If suspended sentences and bench paroles are combined into one figure for the same years, these two methods decreased from 9.2 per cent to 8.2 per cent of all dispositions.

In order to clarify the changes which have taken place in jail/fines and prison terms, the dispositions have been calculated in terms of index numbers for each of the seventeen years. The index numbers have been established on the base-year of 1935 as 100 and have been placed on Chart IV. With 1935 as the base-year, dispositions carrying a prison term declined slightly in 1935 and 1936 and then increased 3.5 per cent in 1938, while the total number of cases increased 6 per cent. After 1940, prison terms decreased rapidly reaching the lowest level in 1944 with an index number of 53.3 or 46.7 per cent below the 1935 figure. During the same years the total number of cases in court declined to an index number of 71.4 or 28.6 per cent of the 1935 amount. In other words, prison terms as a method of disposing of a case decreased much more rapidly than the total number of cases in court. After 1945, the number of cases in court increased but prison commitments failed to keep pace with the rise. In 1952, the index number for all court cases had increased to 123 or 23 per cent above the 1935 level but the index for prison terms amounted to only 73.2 or 26.8 per cent below the 1935 figure. See Chart III.

Whether the decreased use of heavier penalties (imprisonment) and the increased use of jail-fines (pecuniary) types of sentences in the past seventeen years is the beginning of a trend or merely a short time variation, cannot be stated with certainty at this point. However, it is known that types of dispositions have changed with changing conditions. In general, a well-stabilized society in which there is security tends to use lighter sentences than one in which there are serious disorders. If the changes in dispositions which have been taking place do mark the beginning of a trend it follows the same practices which have occurred in pre-war Germany and Japan. Over a period of forty years there has been a general tendency for the courts in these countries to use more pecuniary or lighter sentences and fewer heavy penalties such as long term imprisonments. Investigators in these countries indicate that the changes have not been due to the decrease in the number of serious crimes but to other known factors.[4] The main reasons are as follows:

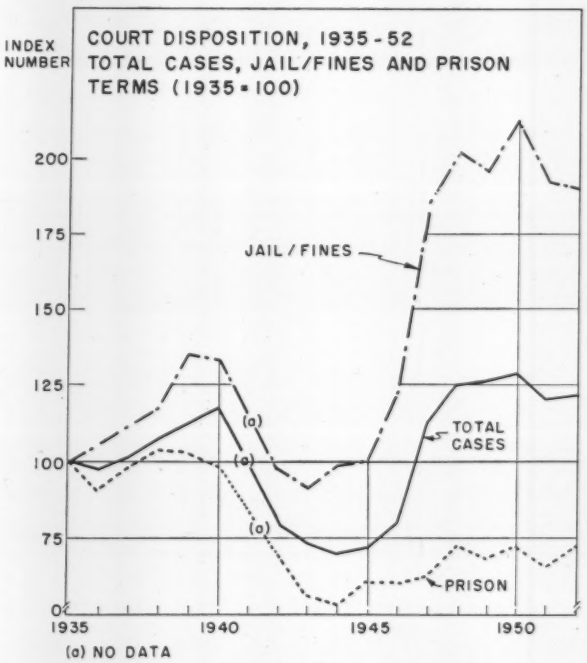

Chart IV

1. Penalties have become lighter as a nation develops and conditions become more secure.

2. As jurists and legal authorities arrive at a deeper understanding of crimes and criminals, law enforcement becomes less severe and courts use lighter punishments.

3. The realization of conditions in prisons and the idea that imprisonment may be more harmful than helpful to the persons involved.

The direction which the disposition curve will take in

[4] Takahashi, M.: *The Praxis of Measuring Penalty in Japan from 1909 to 1940.* Unpublished material, 1953.

the future depends very largely on the penal policy of the courts and the general attitude of the public. If the courts tend to use fines, probation and other extra-institutional methods of disposing of criminal court cases as in the past the commitments may not increase seriously. If, however, the number of serious crimes continues to increase as revealed by Federal Bureau of Investigation reports (42 per cent from 1940 to 1953) courts may return to the use of more serious penalties rather than to use fines and probation. If this change in penal policy occurs the courts can be expected to send more men to prison for crimes and place fewer on probation. This return to heavier penalties may take place in spite of the more or less humanitarian penal policy which has been operative in the country during the past twenty years. Historically, when serious crimes have increased in a country beyond what may be considered the normal or reasonable amount, society has attempted to stem the situation by using more severe penalties. This may not be the solution to the problem but it is the only method to which a society may turn. It has been known for some time that the penal policy of the courts in the states has had little or no effect on the amount or rate of crime because the court deals with the problem after the crime has taken place and is not ordinarily related to those conditions which lead to crimes. Just when the amount of crime within a nation reaches a "saturation point" beyond which people will not tolerate further lawlessness cannot be indicated but in the past such points of saturation have occurred. It is at this point that a change may occur in the penal policy and the courts may apply more serious penalties. ★★★

SOUSA ELECTED PRESIDENT OF FBI ACADEMY ASSOCIATES

Carlos A. Sousa, Sheriff-Coroner of San Joaquin County, is the new President of the California Chapter, FBI National Assembly Associates. He was chosen in the annual election at the close of the three-day Retraining Session held recently at Palo Alto. He succeeds A. Lowell Hopkins of Los Angeles. J. Gordon Bowers, Chief of Detectives, Los Angeles Sheriff's Office, stepped up to First Vice President and Chief William A. Hydie, Palo Alto, was the unanimous choice for Second Vice-President. Francis X. La Tulipe is the permanent Secretary-Treasurer.

Through a special telephone arrangement, J. Edgar Hoover, FBI Director, addressed the assembly directly from his office in Washington. He complimented the California Chapter for its aggressive program and for having the largest enrollment of any chapter in the country.

NOTRE DAME APPOINTS ADVISORY COMMITTEE ON CORRECTIONS

The University of Notre Dame has appointed the following persons to serve on its advisory committee for its correctional administration program: James V. Bennett, director of the Federal Bureau of Prisons; Thomas J. McHugh, New York State Commissioner of Correction; Professor Jeremiah P. Shalloo of the Sociology Department of the University of Pennsylvania; G. Howland Shaw of Washington, D. C.; and Randolph E. Wise, Commissioner of Public Welfare in Philadelphia.

ENFORCEMENT TRAINING MANUALS AVAILABLE

The first four in a series of basic training manuals on traffic law enforcement are now available at nominal cost from the Traffic Institute, Northwestern University, 1804 Hinman Avenue, Evanston, Illinois. All of these manuals have been developed and written especially for use in local police departmental training programs. The following four manuals are now available in pamphlet form (8½ x 11 inches) punched for use in a 3-ring notebook.

Stopping and Approaching the Traffic Violator
Patrol for Traffic Law Enforcement
Officer-Violator Relationships
Pursuit in Traffic Law Enforcement

The photo below shows about one-third of the California Academy Associates who attended the recent three-day Retraining Session at Palo Alto.

KNOW YOUR LAW

A Special Section of the Journal Devoted to Legal Questions of Direct Concern to Every Police Officer

Edited by Francis C. Sullivan

EDITOR'S NOTE: *On one occasion, a police officer in an emergency situation made a compelling decision in six seconds; subsequently, it took the Supreme Court in his state six months to decide in a split decision whether he was right or wrong. If the law is confusing to lawyers and to Supreme Court Justices at times—and some of the best and most convincing analyses of the law are frequently expressed in dissenting opinions—it is understandable that the police officer may on occasion be in doubt as to just what to do in a specific situation.*

As a special service to law enforcement personnel, the JOURNAL *launches with this issue as a regular feature, a Legal Section devoted to problems involving the law which arise in the course of the day's work for every police officer in the nation. Among other things, recent court decisions of importance to the law enforcement field will be reported and an attempt made to indicate their significance to the individual police officer on his tour of duty. In addition, articles and books of legal interest to the police will be brought to the attention of the reader. Here in this new section of the* JOURNAL, *the police officer will find tool information that he can put to effective use every day.*

Professor Sullivan, Editor of the new section, brings to his assignment an imposing array of qualifications. He holds the B.S. and J.D. degrees from Loyola University and is a member of the Illinois Bar and the Bar of all the Federal Courts; he is affiliated with the Chicago, Illinois and American Bar Associations. Professor Sullivan served in the U.S. Army Counter Intelligence Corps in World War II and in the Korean War as a Detachment Commander and member of the CIC School. He served as special investigator for the Department of Defense, as a lecturer in various police training courses in Chicago and is currently serving as Legal Advisor to the Chicago Fire Department Arson Squad. He was engaged in private practice before joining the faculty of the School of Law at Loyola University where he teaches Criminal Law, Evidence and procedure courses.

WITHOUT doubt, the matter of most urgent importance in the field of law enforcement today is the problem of how to obtain a confession which will be admissible in court. When we consider the fact that, even in this day of the near-miracle scientific aids to criminal investigation, interrogation is still the most useful tool of the police officer, we can fully appreciate the importance of obtaining usable confessions in the majority of cases. Police investigation is never an end in itself, but rather a means of obtaining evidence to convict persons who have committed crimes. If there were no crimes committed, there would be no need for police or police investigations. This, however, is not the case. Crime is on the increase, and yet the police, who are expected to prevent this and who receive the blame for the increase, are having more and more difficulty in obtaining convictions. We are asking David to fight Goliath with his slingshot immobilized by legal restrictions. Nowhere is this more true than in the area of confessions.

Traditionally confessions have been admitted into evidence so long as they were voluntarily made by the accused. The reason for this was simply that there was no reason to doubt the truth of a confession unless it was shown that the confession was procured through the use of force, coercion, threats or promises. If a confession was deemed to be true—and was corroborated by other evidence—why should it not be presented in evidence at the trial of the accused?

This was a rather simple test—perhaps too simple. The Supreme Court of the United States then injected into the picture another requirement for the use of a confession against an accused—a test of fundamental fairness required under the due process clause of the Fourteenth Amendment. This is all well and good except for one small problem—fundamental fairness is to be determined from all of the circumstances of a particular case, including the age, intelligence, education and mental and physical condition of the accused. It is thus a test most difficult to apply, particularly by the person who must make the initial determination—the officer conducting the interrogation. He must decide whether the method he is using to obtain the confession accords with fundamental fairness to the particular individual being questioned, considering all of the relevant circumstances. If you feel that this is not a difficult test to apply, consider that in many cases six courts may be called upon to determine whether or not the procedure followed in obtaining a confession was in accordance with the fundamental fairness rule. As has happened several times, five of these courts will find no violation of due process and therefore uphold a conviction based on the confession, but when the case finally reaches the Supreme Court of the United States, that court, in a split decision, will reverse all of the other five courts and find that the method used to obtain the confession violated the constitutional rights of the defendant. All too often this

Face the shot . . . Probably more shots at game are missed because of poor footing than any other reason. Be sure of firm footing for the pivot foot so that you are prepared to face the shot when it appears. Practice occasionally with gun in hand to face a shot anywhere in the immediate front. Duck shooters can practice by arising from a chair, gun in hand, with the pivot foot in position to receive the weight and preserve balance.

results in the freeing of the defendant, because, without the confession, a successful prosecution is impossible.

The solution to this problem is not easily found, and law enforcement consequently suffers. It would seem that the age of specialization has now permanently invaded the police department. The day is gone when any officer with general police experience was fully qualified to interrogate a suspect and obtain a confession which will be admissible in court. The modern police department will find it necessary to provide specialists who must receive intensive instructions in the ticklish and complex area of permissible activity in obtaining confessions, and once trained must constantly keep abreast of the ever-shifting currents as revealed by the decisions of the courts. The current decisions are well known by competent defense attorneys who can be counted upon to use them to the fullest extent in the defense of their clients. Can the police be any less prepared? If the police are to retain the confidence of the public, they must not retire from the battle, but rather develop their resources so as to make the best of the situation.

RIGHT TO COUNSEL DURING INTERROGATION

The Supreme Court of the United States has in three recent decisions decided that an accused is not *always* entitled to have his attorney present during police questioning.

In the first case,[1] coming from California, the accused was a 31 year old college graduate with one year of law school training who confessed to the murder of his paramour. His sentence to death was affirmed by the Supreme Court in a split decision on the basis of the accused's age, intelligence and education, and the fact that all of the circumstances of the case indicated that the defendant was fully aware of his legal rights.

In the second case,[2] arising in New Jersey, the accused pleaded no contest to a charge of murder during the course of a robbery. He claimed that this plea was caused by a confession obtained by the police after he had requested to see his attorney, who was present. Defendant's sentence to life imprisonment was likewise affirmed by a divided court holding that under all of the circumstances of the case the denial of the request to see counsel did not violate the due process requirement of fundamental fairness.

The third case[3] featured a Utah woman who confessed to the murder of her husband by poisoning. Here, the father and uncle of the accused had requested that an attorney be furnished to her, although defendant herself did not request an attorney until after she had made an oral confession. Once again the Supreme Court upheld a life sentence finding that the officers, who were known to the defendant, "did not intend to take advantage" of her.

The important feature of these cases is not so much the fact that the court in each of these cases held that the refusal of a request for the advice of an attorney during police questioning did not destroy the value of the confessions obtained; but rather that the court indicated that a failure to honor such a request *might* under some circumstances result in a violation of due process, prohibiting the subsequent use of the confession at the trial of the accused. The unanswered question is, then, under what circumstances must the police allow a suspect under interrogation to consult an attorney when he makes such a request? This question is certain to cause police administrators many sleepless nights in an attempt to produce a workable answer. This request is sure to be made frequently in the future. It is certainly no secret that in the vast majority of cases the advice of counsel would result in a refusal to answer any further questions. The interrogating officer is thus placed in a very difficult position when he receives such a request. If he refuses the request, continues the questioning, and obtains a confession, he may well find it to be rejected at the trial. On the other hand, if he

grants the request the chances are excellent that further interrogation will be useless.

What seems apparent is that the police officer on the scene must have a standard which can be readily applied, rather than a nebulous one such as fundamental fairness. What may be fundamental fairness to the officer seeking to solve a crime and forced to make an immediate decision, may be something entirely different to nine judges considering the matter in a detached manner with full and deliberate consideration some thousands of miles away.

It should be noted that these decisions were very close and were the subject of very strong dissents. The change of a single member of the court could result in a rule requiring the furnishing of counsel, upon request, immediately upon arrest.

INTERROGATION OF DEAF AND DUMB SUSPECT

It is difficult to think of a more frustrating situation than to be faced with the necessity of interrogating a person who can neither speak nor hear. The North Carolina officials solved this problem in a recent case[4] by writing their questions and having the accused write his answers. The defendant, a deaf and dumb Negro with a sixth grade education, confessed in this manner to first degree murder and the confession was admitted at his trial, although his conviction was reversed on other grounds.

DUTY TO WARN ACCUSED THAT STATEMENT MAY BE USED AGAINST HIM

The highest court of the State of Virginia has joined an ever increasing number of state courts holding that there is no duty upon an officer to warn an accused in custody that any statement he may make concerning the crime with which he is charged may be used against him.[5] Apparently with one eye on the Supreme Court of the United States, however, the court warned that "we think the better and safer course for an officer to pursue, when a prisoner is about to make a statement, is to warn him that it may be used against him." This warning should be standard procedure for the officer taking a statement, and by all means should appear in the statement itself.

CONFESSION BY ACCUSED WHILE UNDER THE INFLUENCE OF DRUGS

Recently the Chicago police arrested a 19 year old narcotics addict on suspicion of murder. The suspect refused to answer questions "until he had seen a doctor." After examination, the police surgeon found that the prisoner was suffering from withdrawal pains and administered an injection of sodium phenobarbital and hyoscine hydrobromide, a normal treatment in such cases. The doctor also left with the prisoner four tablets of oral phenobarbital, three of which the accused took at once. The suspect was questioned after this treatment and a confession was obtained. The Illinois Supreme Court affirmed a conviction on the ground that the evidence showed that the drugs did not affect the defendant's mental processes and were not such as to prevent him from confessing or denying freely, the confession being therefore voluntarily made.[6] The court also held that such confessions are admissible in evidence, as are voluntary confessions obtained from a person under the influence of intoxicating liquor, although it is for the jury to determine the value to be given to the confession. It should be noted that the Supreme Court of the United States declined to review this decision. The taking of a confession from a person under the influence of either narcotics or intoxicating liquor is a most dangerous practice. It should be avoided if at all possible in order to avoid a charge that the confession was coerced, but, if found to be necessary, all of the circumstances should be recorded in detail, and the confession should indicate that the accused was fully aware of what he was doing and of the consequences of his action.

INDIRECT THREATS TO AN ACCUSED

An example of what cannot be done in order to obtain a confession is found in a federal case.[7] A 48 year old Negro with an eighth grade education was arrested on a robbery charge, and in his possession the police found a gun which had been used in a homicide. After eight hours of questioning, during which the accused denied having any knowledge of the homicide, a police captain threatened to bring in the suspect's wife

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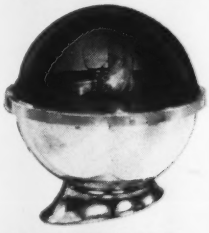

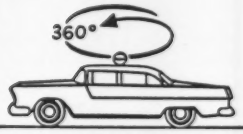

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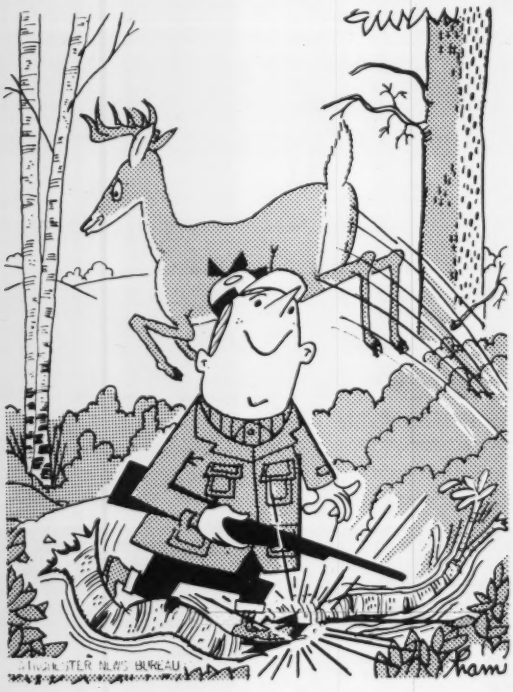

Walk softly . . . Never step on anything you can step over. That's an old guides' saying that will put venison in the pot instead of on the run. The crack of breaking twigs and sticks puts wildlife on the alert.

for questioning and to send the suspect's two children to an institution if he did not confess. After a total of thirteen hours of questioning the accused confessed. The confession was held to be coerced and thus a violation of due process.

INSULIN SHOCK

A Minnesota case[8] points out the ever-present danger of jumping to conclusions. The defendant was charged with and convicted of driving an automobile while under the influence of intoxicating liquor. The accused, a diabetic, contended that he was suffering from insulin shock at the time he was arrested. Two witnesses for the prosecution testified that they detected an odor of alcohol on defendant's breath. A medical witness for the defendant testified that a person in insulin shock may have an odor on his breath if he has some transient acetone or diacetic acid in his blood—from the acetone a sweetish odor; from the acid a kind of sour odor; or the odor could be a combination. "(The doctor) pointed out in his testimony that persons suffering from insulin shock become antagonistic and negativistic in their attitude and that this constitutes one of the clear symptoms of insulin shock. Every doctor knows, and most lay persons who have experienced a diabetic in the family know, that the one who suffers from the disease is often plagued by the peril of the blood-sugar level going too low as a result of insulin shots. If insulin shock sets in, the diabetic becomes giddy, confused and faces the probability of a complete blackout. It is known . . . that the victim can counteract such shocks with candy or sugar if they are within reach and the victim is still able to sense the necessity for its immediate use." The court in reversing the conviction held that the evidence clearly showed defendant not to be intoxicated, but to be suffering from insulin shock.

The investigator seeks facts—and all of the facts. The minute he allows himself to form a conclusion based upon only some of the facts, trouble results. As indicated by this case, things are not always what they appear to be, and the officer should not make a hasty judgment which cannot later be sustained when all of the facts are available.

SCIENTIFIC EVIDENCE

An example of the unbeatable combination of thorough, intelligent investigation and the use of the scientific aids available to the police is found in a Florida hit and run case.[9] The court here affirmed a manslaughter conviction although there was no direct evidence that defendant's car had struck the body. An examination of defendant's car gave no indication of an impact with a human body. The prosecution presented a pathologist who testified that the injuries to the body were consistent with those which would be received if the body were struck by an automobile. The key evidence was that presented by the Chief Laboratory Technician of the Dade County Sheriff's Bureau of Criminal Investigation, who testified that scientific comparison of substances showed: fibers taken from thread of decedent's blouse were similar to those found on the undercarriage of defendant's auto; samples of hair found on the undercarriage of the car were similar to decedent's; samples of grease found on the body were similar in all observable characteristics to grease samples taken from the auto; and paint fragments found on the body appeared to be similar to paint samples taken from the car. The thoroughness of the investigation is indicated by the fact that the thread was found on the tie rod of the car, samples of hair on the crankcase drain plug, and the paint samples in the crankcase.

HANDWRITING COMPARISON

Examiners of questioned documents are frequently called upon to testify in court as to whether a particular document was, in his opinion, written by the author of known specimens. The New Jersey Supreme Court was recently called upon to determine whether the qualifications of a handwriting expert could be tested on cross-examination by the use of specimens not in evidence.[10] In a prosecution for forgery, the defense attempted to test the competence of the prosecution's handwriting expert in the following ways: (1) Examining the expert on the methods and criteria employed in analyzing and comparing handwriting specimens; (2) Requesting the expert to write his own name twice on a piece of paper in an attempt to show that every one's signature varies substantially each time it is written; (3) Interrogating

the expert as to whether there were differences between the handwriting on an envelope and a letter not in evidence and a writing admittedly made by the prosecuting witness; and (4) Asking the expert whether two writings, not in evidence and prepared by defendant's attorney had been prepared by the same person. All of these efforts were prevented by the trial court, and defendant was convicted. The Supreme Court, noting that the solution of this problem varies greatly from state to state, held that it was error to refuse to allow the defense to use methods 1 and 3 above, but that there was no error in refusing methods 2 and 4 above, since this "would not have added much if anything to the merits of the issue," and such examination "easily lends itself to tedious and confusing repetition." The court commented: "Script comparison is not an exact science, even with its recent improvements. There is still room for error. The exposure of a fallacious opinion as to genuineness would undoubtedly have turned the tide in defendant's favor. There is little justification for barring absolutely the use on cross-examination of specimens whose authorship is, at that time, not specified. What may prove to be a devastating weapon in the service of the innocent should not be banned under any and all circumstances merely because of its inconveniences."

The danger of this reasoning should be clear. The expert has formed an opinion as to the authorship of the document in question only after long and thorough examination of this writing with known specimens. Would it be fair then to test his competency to do this by asking him to make an educated guess in the courtroom as to the authorship of one or more documents that he has seen for the first time? The court partially answers this objection by stating that the expert may protect himself against "imposition" by requesting time in which to study the specimens submitted. It is not clear whether a trial judge must grant the expert time in which to examine the specimens in every case, or, if so, how much time should be allowed. What is clear is that handwriting experts in New Jersey and other states following this rule must prepare themselves for an intensive cross-examination by defense counsel and resign themselves to many unhappy moments on the witness stand.

INCOME TAX NEWS

Good news is available for the police officer suffering from that all too common disease "taxitis." The Internal Revenue Code of 1954[11] authorized police officers to exclude from their gross income for tax purposes an amount, not to exceed $5 per day, "received as a statutory subsistence allowance." In two cases[12] the federal courts upheld the right of officers to exclude such allowances, and the Internal Revenue Service has just announced that it will follow the rule of these cases in the future. The exclusion is available whether or not the amount actually spent for subsistence is less than the amount of the allowance, and even if the salary of the officer is reduced by the amount of the subsistence allowance so that he receives the same gross amount. This is a tax benefit which should be made available to all police officers either by state statute or by local ordinance. The ordinances at issue in the decided cases are set forth below for possible use in other localities.[13] The tax savings offered by this device are substantial and well worth the effort of obtaining the necessary authorization.

A GROWING LIST OF GOOD BOOKS

To Meet the Need for Authoritative Information on Abnormal Behavior and Sexual Perversions

- J. Paul de River—**THE SEXUAL CRIMINAL: A Guide to Psychoanalytical Study.** 2nd Ed. pub. '56, 400 pp., 84 il., $6.50
- J. Paul de River—**CRIME AND THE SEXUAL PSYCHOPATH.** Pub. Oct. '58, 384 pp., 22 il., $6.75
- Melvin Reinhardt—**SEX PERVERSIONS AND SEX CRIMES: A Psycho-cultural Examination of the Causes, Nature and Criminal Manifestations of Sex Perversions.** Pub. '57, 352 pp. (Police Science Series), $5.75
- Paul J. Reiter—**ANTISOCIAL OR CRIMINAL ACTS AND HYPNOSIS.** To be pub. Jan. '59.
- Eugene de Savitsch—**HOMOSEXUALITY, TRANSVESTISM AND CHANGE OF SEX.** Pub. July '58, 128 pp., $3.50

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7. *U.S. ex rel Rogers v. Cummings*, 154 F. Supp. 663 (U.S. Dist. Ct., Conn., 1956).
8. *State v. Simonsen*, 89 N.W.2d. 910 (Minnesota, 1958).
9. *Trimble v. State*, 102 So.2d. 738 (Florida Dist. Ct. App. 3, 1958).
10. *State v. Bulna*, 141 A.2d. 529 (New Jersey, 1958).
11. Section 120, Internal Revenue Code, 26 U.S.C. 120.
12. *Shirah v. United States*, 253 F.2d. 798 (C.A.4, 1958); *Parrish v. United States*, 158 F.Supp. 238 (D.C.Ga., 1958).
13. "An Ordinance to Provide a Subsistence Allowance to Police Officials Employed by the City of Columbia, South Carolina

    Be It Ordained by the City Council of the City of Columbia, South Carolina:

    Section 1. Beginning with the fiscal year 1955-56, of the amounts appropriated by the City Council of Columbia, South Carolina for police officials, the sum of Five ($5.00) Dollars per day for each work day shall be designated as and shall constitute a statutory subsistence allowance. The purpose of this section is to give police officials employed by the said City the Tax benefits provided for by Section 120 of the 1954 Internal Revenue Code." Ordinance of the City of Albany, Georgia: "That from and after the passage of this Ordinance, and commencing October 16, 1955, there is hereby set up, fixed and allowed to every member of the Police Force of the City of Albany, a subsistence allowance of $5.00 per diem, which shall be paid to said respective Police Officers, semi-monthly." ★★★

COMBAT SHOOTING

POLICE FIREARMS — AMMUNITION — SHOOTING TECHNIQUES

Double Action Shooting

Edited by Deputy Chief Inspector Paul B. Weston

EDITOR'S NOTE: *The* JOURNAL *is pleased to announce a new feature section beginning with this issue dealing with Police Firearms, Police Firearms Training and Techniques in the Use of Firearms—a section concerned with the tool use of the difference that is suspended from the belt of every police officer in the country. Presiding over this new section is Deputy Chief Inspector Paul B. Weston of the New York City Police Department. Among his major activities and interests is pistol shooting and trying to make better shots of police officers. Inspector Weston brings to this assignment a long and successful experience as a police officer in the New York City Police Department. After service as a patrolman, he was assigned to the Police Academy as Firearms Instructor. Later, with the rank of Sergeant he served with a Patrol Precinct and during this time was both team member and Captain of the New York City Police Department Pistol Team.*

Upon promotion to Lieutenant, he was assigned to Desk Duty and later as an Instructor in charge of all firearms training. Subsequently promoted to the rank of Captain, he participated in a survey of the New York City Transit Police and completed a revision of the Rules and Procedures of the Department. He was assigned to assist the late Bruce Smith in a survey of the New York City Police Department and this duty was followed by approximately a year in command of a Patrol Precinct in Manhattan, and a year supervising plain-clothes men assigned to vice and gambling investigations. Promoted successively to the rank of Deputy Inspector and Deputy Chief Inspector, he spent two years in Patrol Divisions and four years in the Traffic Division. Inspector Weston retired recently from the Department to devote full time to two major interests—writing and as a consultant in police surveys and reorganization.

Watch for the next edition of COMBAT SHOOTING in the March-April issue of POLICE *dealing with the* PISTOL TRAINING PROGRAM OF THE MASSACHUSETTS STATE POLICE.

ALL too many people think of double action shooting as one simple technique of fire. There are three different types of double action shooting, all involving slightly different techniques of aiming the weapon and actuating the trigger. These are:

(1) Aimed fire, using two-stage trigger pull;
(2) Point shoulder firing, using either the two-stage trigger pull or one continuous pull on the trigger;
(3) Hip shooting.

TWO STAGE TRIGGER PULL

The shooter who uses the front and rear sight to aim the gun and the two-stage trigger pull to get a shot off will naturally deliver the most accurate type of double action shooting. The two-stage pull involves a sweeping movement to the rear of the trigger finger for about 7/8's of its full travel, and in this motion rotating the cylinder and at the same time placing the hammer in what amounts to the "cocked" position. The second stage is then only a slight pressure on the trigger to release the "cocked" hammer.

Most shooters utilize a pressure point to gain the necessary trigger control. By shifting the grip slightly to the right, the tip of the trigger finger will come up against the rear of the trigger guard at the end of the first stage. The second stage is then easily adjusted by squeezing with the tip of the trigger finger against this metal portion of the gun. In effect, the pressure point acts as a brake at the end of the first portion of the two-stage trigger pull, and a control for the second portion. Some shooters build up their grip to provide a better pressure point than the metal of the gun at the rear of the trigger guard.

Policemen who fire Colt Revolvers utilize the "click" of the cylinder locking bolt which can be heard when the trigger is actuated about 2/3's of its travel to the rear. Others combine both the pressure point and the click to determine when to brake at the end of the first stage, and when to start easing into the second stage of the trigger pull. Of course, the noise of someone shooting at you precludes any attempt to listen to the "click," but this technique does assist a shooter in learning where to brake this two-stage pull when shooting double action for the first few times. It is not recommended for field use.

POINT DIRECTIONAL AIMING

Point Directional Shooting is usually fired from a semi-crouch position. The gun is aimed by looking over and around it at the target, the gun being brought up into the line of sight. Some point directional shooters will attempt to get a broad view of the sights on their second, third, and successive shots, while others believe that any use of the sights violates the principle of this type of shooting—look at the target, bring the gun up into the line of sight, and roll the shots off with some rapidity of fire.

Deputy Chief Inspector Paul B. Weston

The one continuous pull on the trigger is suitable for this type of fire. This is generally known as a "sweep" pull, as the trigger is brought all the way to the rear in one sweeping motion.

This type of shooting is frequently referred to as point shoulder shooting, but I like this new terminology. As Bill Owens, boss of the Massachusetts State Police Training School told me at lunch a few days ago: "Talking about 'point shoulder' made our men shoulder conscious. We want them to direct their fire by pointing, that's why we call it 'point directional' shooting."

HIP SHOOTING

Shooting from the hip is normally the least accurate type of double action fire. It is usually fired from a crouched position offering as little target as possible to the policeman's opponent. And since it is assumed the policeman is in close combat with his armed adversary, great rapidity of fire is demanded. The normal practice range for this type of shooting is seven yards. This range approximates combat in an average room, and even the two-stage double action shooter will slip into the swept trigger motion for this type of fire because of the pressure of a time limit of less than ten seconds. This type of firing simulates the need to get the bullets out of the gun and into the policeman's adversary. It is also assumed that the officer's opponent has the same motivation.

DEFENSIVE FIRING

All double action shooting is pointed toward combat or defensive firing situations. Fundamentally the police officer faced with a tactical situation which requires him to defend himself is the best judge of which type of fire may save his life. In such situations a slight error in judgment can have fatal results, and it is up to the officer himself to make what is usually a split second decision. On the other hand, the police training officer has a responsibility to the policeman to acquaint him with each of these types of double action fire and to provide the opportunity for practice under good coaches. Where a department is too small to warrant the assignment of an officer to training duty then the responsibility rests with the Chief.

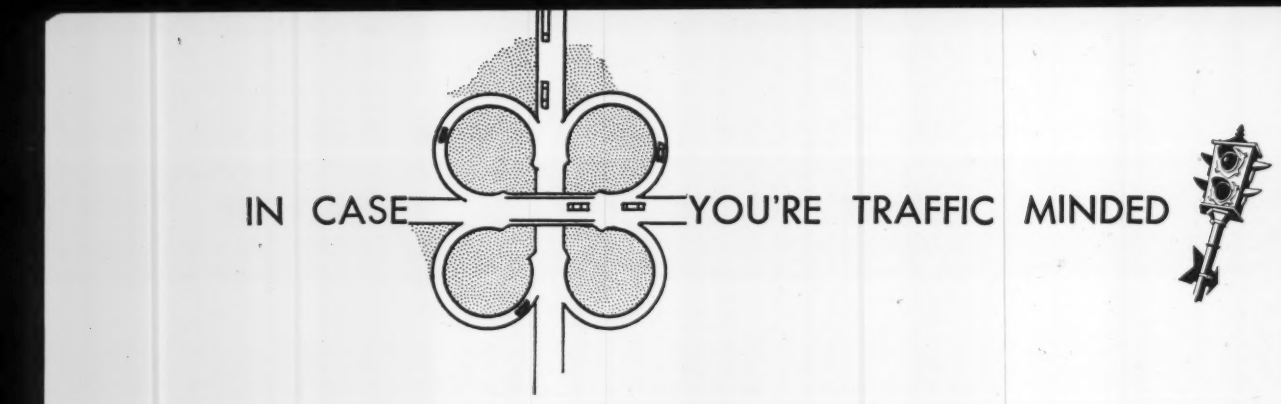
Possibly the greatest enemy of successful double action shooting is the empty gun. As a shooter and policeman of over 20 years experience I know of no situations which gives me greater concern than the modern tendency to teach a policeman to empty his gun. Double action shooting can empty a gun with great speed. If it is done without the accuracy necessary to cope with the situation then the police officer is in trouble. I don't care how fast officers can be taught to reload a weapon, if an opponent still has cartridges to shoot and the policeman must reload, the situation cannot be worsened. For the policeman to live the gunman's weapon has to misfire or his bullets miss their target.

ACCURACY OF FIRE

Only a few days ago I listened to a firearms training officer of a large Eastern City deliver a lecture on shooting, on how his department trained their men. He spoke glibly of the Practical Police Course, of tactical situations requiring defensive firing, of night firing, and other aspects of firearms training. Never once did he mention the great need for accuracy of fire, though he did deplore the need of training men in slow firing shooting.

A great truth in pistol shooting, regardless of whether the fire is directed at a target or an armed criminal, is that only the hits count. If the situation demanded it I would "sweep off" two or three fast shots from the hip, but then I'd "point directional" one or two more, and if these shots did not silence my opponent I would aim and fire with a two-stage trigger pull. And I think my mind would be working on a simple thought: "Make them count, an empty gun is useless."

Inquiries and comments are invited by the Section Editor. They will receive his prompt attention.



A Method of Determining the Safe Driving Speed at Night*

By A. R. Lauer and C. O. Swanson

EDITOR'S NOTE: *Dr. Lauer is Director of the Driving Research Laboratory at Iowa State College, Ames, Iowa. A detailed statement concerning his work appeared with the first installment of a series of two articles under the title,* PSYCHOLOGICAL FACTORS IN HIGHWAY TRAFFIC AND TRAFFIC CONTROL, *in an earlier issue of* POLICE. *He presides over a research operation at Iowa State College which has been making important contributions in the field of traffic administration.*

The adoption of scientific method has been a characteristic of the police march toward professionalization in recent years. In the following article, Dr. Lauer presents a method for the determination of safe driving speeds under night-time conditions which could make the difference between a case and no case at all. What he has to say will be of interest not only to personnel assigned to traffic duty but to all patrolmen.

PROBLEM

THE problem of establishing a safe driving speed at night resolves itself into two separate problems which may be stated in question form.

The first question being "In what distance can one stop a car on a straightaway where all conditions are at the optimum?" Other factors involved which may lengthen this distance are:

a. Efficiency of the brakes.
b. Traction conditions ordinarily described as the coefficient of friction.
c. Whether the car is headed up or down grade.
d. Reaction time of the driver.

Since all these vary and since there is a difference between a *safe stopping distance* and a *minimum stopping distance,* it is necessary always to allow a margin of safety. Engineers usually consider 200-300 per cent as a reasonable amount to allow for safety in most calculations. There is just as much hazard to life and an expression of reckless driving in bringing a car to a *minimum stop* and throwing the baby or grandmother through the windshield as there is in bumping into the back of another car or having someone else jam into your car when stopping.

STOPPING DISTANCE

The following formula is widely used to calculate *stopping distance:*

$$\text{Stopping distance} = \frac{V^2}{30f(t \pm p)} + 1.467VT$$

Where V is speed in miles an hour, f is the coefficient of friction, p is the per cent of grade expressed as a whole number, and T is the brake-reaction time of the driver. (See glossary at end.) Table I below gives some idea of these values when a reasonable safety factor is added. The table was composited from several existing sources, some based on theoretical calculations and some on actual experiments.

TABLE I

STOPPING DISTANCE UNDER DIFFERENT ROAD CONDITIONS
(A composite index based on various published tables)

Speed	*Dry Concrete*	*Ordinary Gravel*	*Wet Pavement*	*Packed Snow*	*Ice or Sleet*
20	42	65	70	94	210 or more
30	82	129	140	185	415 or more
40	143	223	242	322	740 or more
50	220	339	366	490	1190 or more
60	317	486	526	700	1535 or more
70	436	670	723	970	2170 or more

PERCEPTUAL DISTANCE

The second question involved may be stated as "What is the perceptual distance or the minimum distance

* Based on experimental data from standard sources. See references for details.

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which the driver can distinguish the average object that he is likely to encounter on the highway at night?"

This distance involves a number of factors and has been subjected to experimentation by Roper (9). They have established certain limits for *perceptual distance.* No one has formulated this into a mathematical expression but some corrections need be used to make their figures anything like precise. These investigators found that expectation affects the perceptual distance of a nonself-luminous object of approximately seven per cent reflection factor, from 20-70 per cent. In other words, if the driver knew he would see a dummy in the road at a certain point he would see it at about one-third to one-half the distance as he would if not sure where the object would be presented.

They also found that the speed at which a driver is traveling affects this distance. The faster the speed the shorter the *perceptual distance.* This is shown in Graph 1 taken from Roper's monograph (9). Headlight strength has been considered in this graph.

It is shown that low beam intensity may be of the order of 1/3 the beam candle power of high beam intensity and thus it is important to know whether the headlights were on high beam or low beam.

The factors that affect *perceptual distance* at night are:

a. Strength of the headlamps in beam candle power. This may be measured at the time with a suitable instrument. Several such devices are on the market (see Table II, p. 4).

b. Speed of the car and its effect on the driver.

c. Visibility or conditions of the atmosphere with respect to snow, rain, fog, mist, dust, etc. This factor might be estimated by the patrolmen with a flashlight and expressed in terms of per cent by the following method or some modification of it. This, of course, applies only to condition of darkness (see Table III, p. 4).

TABLE II

TABLE OF PERCEPTUAL DISTANCES (IN FEET)

Speed mph	Candle Power 20,000	25,000	30,000	35,000	40,000	45,000	50,000	62,500	75,000
60	144	165	173	183	191	199	207	217	230
61	142	163	172	182	190	197	206	215	228
62	140	161	170	180	188	195	204	213	226
63	138	159	168	178	186	193	202	211	224
64	136	157	166	176	184	191	200	209	222
65	134	155	164	174	182	189	198	207	220
66°	132	153	162	172	180	187	196	205	218
67°	130	151	160	170	178	185	194	203	216
68°	128	149	158	168	176	183	192	201	214
69°	126	147	156	166	174	181	190	199	212
70°	124	145	154	164	172	179	188	197	210
71°	122	143	152	162	170	177	186	195	208
72°	120	141	150	160	168	175	184	193	206
73°	118	139	148	158	166	173	182	191	204
74°	116	137	146	156	164	171	180	189	202
75°	114	135	144	154	162	169	178	187	200

Keep Clean . . . Don't wear your firearm out in cleaning. Run an oily rag through the barrel, wipe off the outside with a lightly oiled cloth, and once in a blue moon remove the lead with a gauze cleaner of soft brass bristle brush using a powder solvent. Don't worry about the copper wash left from bullet jackets—no harm done.

TABLE III

PROPOSED VISIBILITY SCALE

Recognition of features of a fellow officer lighted by a flashlight at a distance of	*Per cent visibility*
25 feet	25
50 feet	50
75 feet	75
100 feet	100

It would probably not be useful to have a more refined scale. However some experimentation ought to be done to establish standards. There are high grade instruments for measuring visibility.

d. Acuity of the driver. Perceptual distance is roughly proportional to visual acuity in per cent when calculated from the Snellen fraction. This correction is necessary. It is highly desirable that visual acuity of every driver be shown on his license.

It seems asinine that one with 20/39 vision should be allowed to drive with all the privileges pertaining thereto without other considerations, while one with 20/40 vision

Clothes line . . . Duck shooters might consider a safety factor when picking out their wardrobes. Should you fall overboard into deep water, coats, vests and pants made with feather or down will keep you afloat at least for a short time.

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will have to wear glasses which may increase his *perceptual distance* by more than double. One with 20/40 vision with correction may see much better than one with 20/20 vision without glasses.

ADJUSTMENTS AND CORRECTIONS FOR ROPER'S DATA

Thus to be scientifically precise the following corrections should be made to the *perceptual distance* as given from Roper's graph for any individual X at t moment on the highway when apprehended under vc, visibility conditions. Let R be the distance taken from graph 1 of Roper's data (9) at a given speed or see Table II. Multiply this value by the product of visibility conditions and acuity of the driver in per cent. Thus,

$$\textit{Perceptual distance} = R \times vc \times a$$

Here *a* is the acuity in per cent derived from the Snellen fraction as described by Swanson (11). *Stopping distance* is calculated by the formula, or may be taken from Table I.

Suppose stopping distance should turn out to be 322 feet. By further referring to Roper's graph we may find that his *perceptual distance* is 280 feet under ideal conditions. (See Roper reference or Table II.) Further suppose it is foggy and visibility is calculated to be about 75 per cent. In addition his driver's license states that he has 20/25 or 80 per cent visual acuity.* His actual *perceptual distance* when adjusted for the visibility conditions and his acuity would be

$$280 \times .75 \times .80 \quad \text{or}$$
$$280 \times .60 = 168 \text{ feet}$$

Thus, the driver is traveling too fast for conditions and may be guilty of reckless driving according to some state laws.

This may be converted into miles per hour to establish the rate the operator should have been driving for a "safe and reasonable speed."

CONCLUSIONS

Suggestions are given for calculating a *safe stopping distance* at night under given conditions of driving. Also for establishing the *perceptual distance* with given conditions of the weather and of the driver. Adjustment for the two with further allowance for tolerance would determine the "safe and reasonable speed" at the time of apprehension of the driver in question. It is suggested that the safe driving speed be calculated in miles an hour for the driver and then a tolerance of five miles an hour be added to the minimum distance. Thus, the "safe and reasonable speed" might be five miles over the calculated value.

This is an abbreviated statement of the procedure outlined by Swanson[11] and would apparently adapt itself quite well to the requirements of traffic accident investigation.

GLOSSARY FOR METHOD OF DETERMINING THE SAFE DRIVING SPEED AT NIGHT

Safe driving—Driving a motor vehicle in such a manner as to avoid collision with other vehicles or persons and in such a manner as to have proper control of the vehicle at all times.

Expert driving—Driving a motor vehicle of any type in such a manner as to show superior skill but at the same time possibly creating a hazard to other persons involved in the driving performance. An example would be a racing car driver who is undoubtedly expert and skillful but who frequently injures himself, his vehicle, or others due to taking extreme risks inherent in racing driving.

Efficiency of brakes—Condition of the brake drums, lining, adjustments, etc. which will give the maximum amount of retarding effect on the vehicle in the shortest possible time with the adequate pressure on the brake pedal. This can be measured in per cent on most brake testing machines.

Traction conditions—Conditions of the surface of the roadway; whether mud, gravel or pavement, which determine the amount of grip between the tires and the surface of the road ordinarily known as coefficient of friction. (It is commonly believed that a light vehicle can be stopped quicker than a heavy vehicle. This is erroneous and experiments have shown that while the heavier vehicle has a more firm grip on the highway, it also has greater momentum and the two cancel each other.)

Gradient—Most roads are not perfectly level and either slope up or down in the direction of travel. This is commonly referred to as per cent of grade and is measured by taking the amount of fall for each 100 feet of roadway, divided by the 100 feet or unit of length taken in the same units.

* This is without glare. If meeting glaring lights another correction should be added on which experimental data are available.

Reaction time—It is time required for the driver to think and to start to react. It is the time measured from the instant of presentation of the stimulus until the foot or other part starts to move.

Brake-reaction time—Is the amount of time for the driver to think, remove his foot from the accelerator, move it over the brake pedal and start to depress. This is considerably longer than reaction time as such. It is not correct to use the term reaction time when brake-reaction time is indicated in a practical situation such as driving. Two components of the latter may be identified as *reaction time* and *action time*.

Margin of safety—In all kinds of building and construction work, as well as in allowance for lag of various kinds, a margin of safety is needed. In steel work it is said that the designers figure only 20,000 pounds per square inch for stress to be imposed on a bridge. At the same time it is known by experimental evidence that actual breaking points of many types of steel may run up to 64,000 pounds. This would be a safety factor of about 300 per cent plus.

Unless some safety factor is allowed, there is likely to be serious consequences in the results of driving. It is likely this is one of the things that is responsible for most of our accidents on the highway today. People mistake the *minimum stopping distance* for the *minimum stopping distance plus an adequate margin of safety*.

Stopping distance—The distance which a car moves on a highway from the instant the driver is alerted for a stop until the vehicle comes to a complete stop.

Reasonable safety factor—As stated above, engineers allow up to 300-400 per cent margin of safety at times for certain kinds of structural work. It is not unreasonable to consider 200-300 per cent as a reasonable margin of safety in handling traffic situations. For example, in road design a vehicle is approximately six feet wide. Highway engineers are now building the road lanes of to 25 feet. In the latter case this would allow a safety factor of approximately 400 per cent.

Perceptual distance—The term perceptual distance in psychology refers to the distance in which a driver can distinguish objects ahead of him of an average brightness on the highway. These are assumed to be nonself-luminous and most references are to nighttime conditions.

Self-luminous—Referring to any object which is internally lighted. The sun, an electric light bulb with the current going through, a lighted match or candle are examples.

Reflection factor—Refers to the ratio between the dark and the light parts of an object or some standard which may be used. For example, using a calcium carbonate surface sawed to a sandpaper finish gives a reflection factor of something like 100 per cent or close approximation thereof. In other words, all light is reflected. Compared with this, a black object may not reflect more than two or three per cent of light falling on it.

Candle power—Is the amount of light given off at one foot distance from a standard candle which is approximately ¾ of an inch in diameter. Usually electrical devices are now used for this purpose.

Beam candle power—Since the light from a bulb in a headlamp radiates in all directions but is caught by the reflector and turned on the road in the direction desired, this is usually spoken of as beam candle power. Foot candles may be read at any distance from the headlight by using what is known as the inverse square law. This would work as follows: Suppose the headlamp beam has 75,000 candle power at one foot distance, as measured by suitable instruments. At 10 feet the light falling on an object would be the square of 10 or 100 divided into 75,000, or 750 foot candles. This inverse square law can be used to calculate the light with reasonable accuracy at any distance beyond 60 feet ahead of a car providing the measurements are made in the "hot spot" or the brightest part of the beam.

Visibility conditions—In flying and aviation certain standards of visibility are considered. These have to do strictly with the conditions of the atmosphere with respect to rain, fog, snow, mist, dust, etc. A ceiling of zero means that one can see perhaps 100 feet above the ground. These can be measured precisely but as a matter of fact it is stated that in most cases they are judged by comparisons of objects around the landing field and a certain object that can be distinguished is used as a standard of estimate for any given report.

Visibility scale—The visibility scale given in this synopsis is not essentially scientifically accurate. It is more a suggestion of how one might go about determining a type of visibility scale for use in the evaluation of conditions at the time such an arrest was made. It could be done on the spot by two patrolmen using ordinary flashlights. Some experimental work needs to be done to establish the precise limits but shorter distances would be needed than are used in aviation work at airports.

Visual acuity—The Snellen standard is ordinarily used for measuring visual acuity. It is based on the ability to read a block letter correctly at a given distance. A ⅝ in. letter, approximately, can be read at 20 feet. If a ¾ in. letter can be read at 20 feet the person is said to have vision of 20/40. In other words, he reads a letter at 20 feet that he should read at 40 feet. There is another notation known as the AMA standards which is not linear in relationship. It has a given relation to Snellen which is shown by the chart in the reference by Lauer and Schepler.

Sight distance—Is a term used by engineers to indicate the distance one having any degree of vision, not considered blind, can see an object of any size ahead. Obstructions such as hills, curves, etc. are the limiting factors. It has nothing to do with *perceptual distance* or visibility conditions as such.

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POLYGRAPH and INTERROGATION

To establish and maintain a standard of ethics and professional qualifications

Edited by ROBERT D. STEEL

Who Is a Fit Polygraph Subject?

By Robert D. Steel

EDITOR'S NOTE: *The author took the B.S. degree at Sam Houston State Teacher's College, Huntsville, Texas in 1941; graduated from Northwestern University Midshipmen's School in Chicago in 1942, and was commissioned an Ensign in the U. S. Navy, following which he served as Executive Officer of the CGR-309 at San Pedro in 1942; Commanding Officer of the* U. S. S. Sea Scout *PYc-43; and First Lieutenant, Sonar and Radar Officer on the* U. S. Osterhaus *DE-164. Since 1948, he has been employed by the Office of Naval Intelligence as a Special Agent; and since graduating from the Keeler Polygraph Institute, has acted as polygraph examiner for the 11th Naval District, in addition to other investigative duties. The author is currently President of the Academy for Scientific Interrogation. This is the first of a series of two articles dealing with an important phase of deception detection—the fitness of the subject for polygraph examination.*

THE man "behind the gun" in law enforcement, as well as in the Armed Forces, first learns the identity of his adversary and determines how to recognize him. The bacteriologist spends his life differentiating between, and classifying, microscopic organisms. The medical doctor in his proper treatment of an illness must, as a first step, identify the disease. In the successful conduct of his quest for "truth through science," the polygraph examiner must recognize, and differentiate between, the "fit" and the "unfit" polygraph subject. For various reasons many individuals are at examination time *temporarily* unsuitable for positive analysis, through instrumental means, as to their veracity. A number of persons are more or less permanently unsuspectible to positive analysis through polygraph examination, and are therefore *indefinitely* "unfit."

In the temporarily "unfit" group we most commonly recognize those individuals who are suffering from forms of fatigue, and/or prolonged nervous tension which has induced "adrenalin exhaustion." Also in this group are persons who are affected by recent consumption of alcoholic beverages, or other stimulants; as well as those who are under the influence of narcotics, and addicts who are suffering from withdrawal pains. We sometimes find individuals appearing for polygraph examination while suffering from some internal infection that has created exceptionally high body temperature and related abnormal physiological conditions such as rapid pulse, high blood pressure, extensive perspiration, and other disturbances.

Among individuals in the permanently "unfit" group are those suffering from certain *subnormal* mental conditions, such as "retarded persons." The major portion of those in the permanently "unfit" group are those with *abnormal* mental conditions, such as the more advanced schizophrenic. The latter group, as will be pointed out later, may be permanently "unfit" subjects on specific items related to their mental illness, however, at the same time can conceivably be excellent subjects on matters related to other cases.

It is unfortunate that despite our best efforts to emphasize the limitations of the polygraph instrument, there continues to be misunderstanding and unreasonable demands made upon the examiner; who is expected to promptly produce positive results in every case, as if "looking into a crystal ball." Even though the examiner is highly trained, widely experienced, well informed on the case, and is utilizing the most advanced instrument on the market, he can still be ineffective in the examination of a subject who is "unfit."

We are reading more and more about the mental health problem. Statistics being quoted are alarming as

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to the number of us who are in immediate need of psychiatric aid, and the percentage of us who will in the course of our lives require such help. Due to the complexities of our environment today, particularly in the hustle and bustle of crowded areas, the problems of human behavior are rapidly multiplying. Racial disputes, labor problems, questionable practices in local and state politics, international tensions, impositions of taxes and federal administration requirements, unemployment, injuries or bad health, indebtedness, losses through casualties or accidents, religious differences, domestic difficulties, working conditions, juvenile delinquency, and scores of other influences are at work upon each of us to a more or less degree in such a way as to tax our sense of balance to its limits. The more intelligent the individual is, the greater his personal strain in relation to requirements imposed upon him, in coping with these trying problems. "Ignorance is bliss," it is said, and this is probably true as a rule. It would be interesting to see a comparative statistical analysis between the "happy go lucky" imbecile, and the "aggressive" intellectual; as to the ratio of those suffering from ulcers, heart trouble, or mental disturbances.

Due principally to these environmental influences, we find that most offenders and wrong-doers in major crimes, are victims of maladjusted personalities. Hence we find that the mental or emotional aspects of the polygraph subject, are of prime concern in the successful conduct of an examination, in most major cases.

The polygraph examiner is considerably handicapped in recognizing and identifying particular, or specific, abnormal behavior patterns. You can't tell, by simply looking at a man the first time, just what his mental condition really is. We recall the story of the busy polygraph examiner late for an appointment, who had a flat tire on his car one cold rainy day last winter, while driving by an asylum for the mentally ill in Austin. The examiner quickly jacked up the car and as he removed the lug bolts from the wheel, he placed them inside the hub cap laying on the pavement nearby. After replacing the flat with the spare, he reached for the lug bolts and accidentally kicked the hub cap which upset, and all but one of the lug bolts dropped down into a storm drain. The examiner stood there frustrated, perplexed, and bewildered due to this unfortunate occurrence. Then an inmate who had observed the happening from a shelter just inside the fence, called out and suggested that one lug bolt be used from each of the other wheels, as this would make it possible to drive safely to a garage. After this was accomplished, the grateful examiner said to the inmate, "Say, you look like a real bright fellow, what are you doing in a place like that?" The inmate replied, "I'm in here because I'm crazy, not because I'm stupid."

Even the highly trained and skillful psychiatrist is similarly handicapped. His methods of approach depend greatly upon the cooperativeness of the subject or patient, and the end result is often times unrewarding except after numerous consultations over a long period of time. As an example we remember the experience of a psychiatrist who was interviewing a suspected deviate. He told the patient that he was going to conduct a little test by showing him some diagrams and the patient was instructed to respond quickly by stating in each instance what first came to his mind. The doctor then took a pencil and drew a *square* in the center of a sheet of paper. When asked, the patient stated that the square reminded him of a bed with two persons in it making love. The doctor then drew a *circle* within the square, and the patient stated that this looked like several persons in bed making love. Then the doctor drew a *triangle*, enclosing the square and circle. The patient stated that that looked like a whole bunch of persons making love. At this point, the harrassed doctor with exasperation observed aloud, "Say, you do have a filthy mind, don't you?" The subject exclaimed, "Who, me? Why, *you're* the one that's drawing the dirty pictures."

Perhaps many of you have read with interest the psychiatric analyses of various historical figures, as concluded by a group of today's well known psychiatrists. Genghis Khan is analyzed as a "genius," while Nero is considered to have been "insane." Dr. Douglas Goldman, Clinical Director at Longview State Hospital, Cincinnati, Ohio, is reported to have diagnosed Nero as an historic example of juvenile delinquency spawned in a sick environment which developed into adult criminal behavior. Dr. Burtrum C. Schiele, of the University of Minnesota Medical School, is reported to have diagnosed Robespierre, who instituted the terror of the French Revolu-

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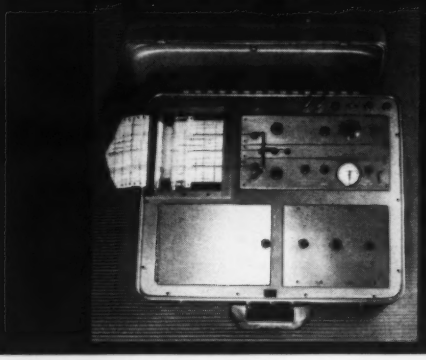

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tion, as having been suffering from a true mental disease of the paranoia type. Robespierre is described as having kept a note book of the names of persons who deviated from his concept of Virtue, and thought everybody who disagreed with him was out to get him. Another paranoid, according to a report of an analysis by Dr. Veronica M. Pennington, of the Mississippi State Hospital, was John Wilkes Booth, whose assassination of Lincoln was simply the last act of a slowly developing mental illness. Delusions of his own superior qualities and unique ability isolated him from normal streams of consciousness. He craved recognition.

In all likelihood the majority of us can readily recall personal experiences with individuals presently suffering in this way. Such contacts have not always been unpleasant, or in an official capacity while in the conduct of an investigation; for many such persons are currently extremely active, and in some cases highly successful, in business and professions. None of us are "perfect" from a behavior standpoint, and each of us has symptoms of abnormal mental behavior, to a "more or less" degree. The line of demarcation between the "sane" and the "insane" is a very narrow one; and it is simply that measure of "degree" that differentiates between the two.

All of us can readily recognize the relatively few persons who possess obvious outward signs, or visual symptoms of mental disorder; such as those suffering from loss of emotional control, or physical and mental equilibrium. It becomes progressively more difficult to have insight into the person's true condition, however, as these readily discernible symptoms diminish. There are undoubtedly numerous persons presently active in normal pursuits who are demented, yet do not reflect this condition in their observable behavior.

Here are two actual examples of these extremes, which may help you to recall to mind personal experiences in similar cases. The first case example resulted from a letter that was received in which it was stated that the "Communists" were "spreading bubonic plague in this Country"; that the "sign" was a "square piece of paper alongside a piece of wood"; and cautioned "where newspapers, radio, and television are concerned"—this information should be treated with utmost caution. Similar "crackpot" letters are not uncommon, but this one was different in that it was signed by a man who was considered to be reliable, and highly respected as a business executive. Upon calling at this gentleman's office, it was found that his schedule was such that a personal interview was not possible at that time, and his personal secretary arranged for him to call by telephone at a later hour. When this man called by phone he graciously agreed to an interview at the office where the letter was received.

At the time of the interview, this man had an appearance resembling those gentlemen in "the distinguished man of the year" ads. He possessed a broad vocabulary, and had a wonderful command of the English language. After only a few words, through which rapport was established, this gentleman was asked for amplifying information relative to his letter. The man qualified his opening remarks by saying that if he said what he was about to say to anyone else, that he would be placed in a strait jacket and locked up; but that the truth is that for years he had "been walking and talking with spirits." He associated this phenomena with events surrounding the passing away of close relatives; and one spirit he regularly converses with is that of his deceased father. It was explained that his father's spirit sometimes materializes out of a "silvery pall of smoke," and has the exact image or appearance of his father. He stated that he talks to spirits of others who are recognizable, but some "look like flying bathtubs, and things like that." When asked to explain the differences in the appearances of these spirits, the man stated that his father was a "good man" so that when he died, "his spirit retained the image of God" such as he possessed while living on earth; but that when people die, who have been living in sin, their spirits lose the image of God and take on the appearance of "flying bathtubs" or other objects. He stated these spirits come to him at odd and different times; while he is driving his car, while sitting at his desk, or while walking in the park. Suddenly the man exclaimed that only recently he had been walking in the park when the spirit of George Washington appeared and walked along with him for a while. He described with considerable merriment how General Washington was dressed, as to that "funny hat he wears crossways on his head."

Bringing the subject back to the question of bubonic plaque as described in the letter, this man replied that he had the word of his father's spirit on the matter and gave assurance that the information was reliable. When asked to explain the "sign" he referred to, the man tore a small piece of paper, about the size of one's thumb nail, from the corner of a newspaper he had with him, and laid it on the desk alongside a portion of a match stem. The man then dramatically indicated that "this is the sign."

Suddenly leaving the subject at hand, the man announced that recently through his contacts in the spirit world, he had made arrangements to meet with and ride in "flying saucers" from outer space. He volunteered the information that he had asked one saucer pilot how fast they flew and was told that the speed was twenty-seven thousand miles per hour. When this gentleman was questioned as to his knowledge of scientific subjects, since this is in the area of speed believed to be required before an object can escape the earth's gravitational pull, he disclaimed having read this figure in any publication or having received the information from any other source.

This man has been analyzed as a paranoid schizophrenic by a competent psychiatrist who was consulted in this case, and these delusions described to him. This doctor held little hope for the improvement of this man, whom he stated can continue to serve a useful life with his mental disorder being unsuspected by his associates. On the other hand his condition normally will become worse, and if the day comes that he suspects a spirit

of being his enemy out to kill him, then he could arm himself and associate this spirit with anyone whom he might come in contact with and take that person's life.

Now this is a case where the polygraph examiner had no difficulty in recognizing this man as an "unfit" polygraph subject, because he "talked," concerning matters related to his disturbance or obvious illness. That is to say, in this particular case, this subject honestly believed his statements to be true. If examined on the polygraph re his claims of communication with the "spirit world" or experiences in a "flying saucer," there would have been no deception criteria present in these claims. This would not however necessarily preclude him from bing a "fit" polygraph subject if questioned about his guilty knowledge, for instance, of a theft or arson, which might have occurred in his office building.

The second case example illustrates the complexities of mental disorders, and emphasizes how cautious one should be in *all* cases. This concerns a custodian of funds who unexplainably disappeared from his organization. After a reasonable time elapse, it become apparent that his whereabouts were unknown and his actions unaccounted for. The safe assigned to him, in which he kept the payroll funds, was then opened and found to contain more than thirty thousand dollars, with only an estimated five hundred dollars missing. Fast inquiries established that this man, at that time, was about 28 years of age, 6′ 2″ in height, weight 200 pounds; was a C.P.A. and had been employed only a short while, during which time he had completed specialized training and recently had been assigned to his custodial duties.

Through certain clues, it was developed that this custodian was probably in a certain west coast resort city under an assumed name. His photo was displayed to various hotel managers in that area until one was found that identified a guest as being this individual. The manager was certain the guest was out of his room and down on the nearby beach, so that a search of the hotel room could be conducted in order to confirm the man's identity. The manager failed to take the precaution of first knocking on the door, and as he turned the key in the door lock, a quick movement on the bed inside could be heard. The manager was shoved aside and the room entered just as the subject was reaching for a spring blade knife on a nearby night stand. The subject was taken into custody and transported back to his assignment area, where he was completely cooperative upon being questioned. He submitted a lengthy voluntary statement in which he described in detail his movements while absent, and confessed to spending the missing funds. His accounting of these expenditures were found to be accurate almost to the penny; even to amounts paid to cab drivers.

At the trial that followed, the polygraph examiner was scheduled to be the first witness to be called by the prosecution. Before the trial reached this point, the defense called as a witness a psychiatrist who had examined the accused on an electroencephalograph. From the brain wave patterns found on the encephalograms this doctor testified that the accused was a psychomotor epileptic. The doctor explained that there are three general categories of epileptics: the type who has "fits" attended by convulsive motions of the muscles and loss of consciousness; a second type of similar symptoms; and the third type is the psychomotor epileptic who can continue his activities in an apparently normal manner even while undergoing a seizure, which might last for hours or days, but at no time could he be considered responsible for his acts. It was testified that such a person would not himself be aware of his condition, and even a doctor could not positively know the person was suffering from an attack unless the patient was hooked up to an electroencephalograph. Ability to later recall experiences during such seizures was claimed to be most likely.

It was determined that the diagnosis was correct, and the trial proceeded no further. The man was found to be ill from this incurable disease, and not responsible for his behavoir or conduct; therefore he was hospitalized. Such an experience will cause the polygraph examiner to view subsequent subjects from a different perspective. One should keep in mind also the fact that in this case, even had the subject taken someone's life, the ultimate disposition of his case would have been unchanged. ★★★

This prisoner entering the Rockford, Illinois, jail is going to have a difficult time claiming he was some place else at a given time as Sergeant Bill Lundberg punches his time card while Officer Mel Schallberg watches.

New system of keeping accurate printed time cards on all prisoners was started after a released prisoner forged and passed a check on a local businessman 90 minutes after his release. Records indicated the time and date of his entry and the date of his release. But there was no time on the release date. Now, a Sentinel time clock, made by the Cincinnati Time Recorder Co., keeps an up-to-the-minute tab on all prisoners.

According to Chief of Police Thomas P. Boustead, who inaugurated the system, the time cards provide a complete record of the time in custody and a double check on the number of meals served prisoners each day. It's also a quick method to check the number of prisoners in custody at any time. Chief Boustead says the system is now a permanent part of his department's prisoner booking equipment.

Academy for Scientific Interrogation Holds Tenth Annual Seminar-Convention

THE ACADEMY FOR SCIENTIFIC INTERROGATION held its 1958 Seminar-Convention at Austin, Texas, 19 thru 22 August; and it was acclaimed by those in attendance as outstandingly successful. This Tenth Annual Seminar-Convention drew the largest number in attendance to date. Principal credit for the overall success of this convention is due the Program Chairman, Mr. Dee Wheeler, of the Texas Department of Public Safety (DPS). Mr. Wheeler was ably assisted by Mr. Leo Hatcher, of the Houston Police Department. Col. Homer Garrison, Jr., Director, Texas Department of Public Safety, and members of his staff made available (to the Academy) use of their two million dollar headquarters facility. Very helpful in contributing to the success of this operation was Col. Fletcher, and Chief McLaughlin, of the DPS

Mr. J. E. Connally, Director, Texas Law Enforcement Foundation (TLEF), was most complimentary in his welcoming remarks to the Academy at the Convention opening, and he made a substantial monitary contribution in the name of TLEF, toward subsidizing Academy convention expenses. Other law enforcement organizations made gifts which when totalled were ample for all Academy needs. These contributions were unsolicited, and the generosity with which they were given is overwhelming, unprecedented, and heart-warming; attesting to the good reputation of ASI. Papers presented at this ASI Seminar-Convention included: *Polygraphy as a Profession,* by Fred W. Nicol, Solicitor, State of Alabama, Tuscaloosa, Alabama; *Polygraph Use in Time and Motion Study,* by Dr. V. A. Leonard, Professor of Police Science, State College of Washington, Pullman, Washington; *Who Is a Fit Polygraph Subject,* by Robert D. Steel, San Diego, California; *Discontinuous Vs Continuous Measurement of Blood Pressure,* by Warren D. Holmes, Miami Police Department, Miami, Florida; *Scientific Interrogation in Criminal Cases,* by R. P. Rainey, Jr., Virginia State Police, Clarksville, Virginia; *Keeler Institute Polygraph Training,* by Leonard Harrelson, Keeler Polygraph Institute, Chicago, Illinois; *One Approach to Polygraphy,* by Edward B. Bates, Stanislaus County Sheriff's Office, Modesto, California; *What Can the Polygraph Do for a Police Department,* by John C. Rapp, Buffalo Police Department, Buffalo, New York; *Army Lie Detector School,* by Edward A. Spohn, CWO, U.S. Army, Provost Marshal General's School, Fort Gordon, Georgia; *Keep an Eye on Your Polygraph Program,* by Dell R. Watts, St. Louis Police Department, St. Louis, Missouri; *Commercial Polygraph Use,* by Cleve Backster, Backster Associates, Inc., New York, New York; and a briefing on judicial matters related to the Polygraph was given by James K. McCarty, Metropolitan Police Department, Washington, D.C. Many of these papers will be published in the JOURNAL POLICE.

The highlight of this convention was the unusually fine entertainment program arranged by Mr. Wheeler, which permitted participation by the ladies and children, making this a most enjoyable vacation for a number of families. The activities began Tuesday night, 19 August, with a get-acquainted party in the dining room of the DPS headquarters building, where Chief McLaughlin made a brief address of welcome which was followed by an open-house tour of the Crime Laboratory and the Identification Section. On Wednesday morning there was a get-acquainted coffee for the ladies, at which time door prizes were awarded, with Mrs. Wheeler and Mrs. Hatcher as hostesses.

On Thursday, 21 August, the ladies and children enjoyed a two hour bus tour of Austin during the morning, which included a visit to the State Capitol and the Governor's Office. At noon they were treated to a (free) luncheon and style show, at which time each lady received individual gifts and favors. Thursday evening, members and wives were royally entertained at the banquet by the after-dinner speaker, Mr. Morris Frank, of the Houston *Chronicle,* Houston, Texas. Mr. Frank generously donated his time and talent to be with us, and added immeasurably to the complete success of this Tenth Annual Convention, which ended on this pleasurable note.

Mr. Cecil E. Hill, Public Relations Officer (DPS) is to be commended for his expert handling of press and TV representatives; his capable pictorial coverage of all events; and for his many other unselfish efforts in behalf of the Academy.

Site for the Eleventh Annual ASI Seminar-Convention will be Chicago, Illinois. Promises are that more than one hundred new members from the ranks of Polygraph examiners throughout the world will join the Academy during the forthcoming year. All interested persons may contact the Secretary-Treasurer, Mr. Dee Wheeler, Texas Department of Public Safety, Austin, Texas; for information and/or application forms. ★★★

Police Notebook

BIG BUSINESS

Government represents the greatest single organization within the geographical limits of a country. How well it is organized and the extent to which performance meets the needs of the society it serves, are matters of overwhelming importance. Perhaps no arm of government is more generally criticized in this respect than is police service. The literature dealing either directly or indirectly with the disabilities of the police has within recent years become quite voluminous.

Criminologists, churchmen, journalists, proponents of reorganization and others have expressed themselves freely on what is wrong with police departments. They have also dealt with those conditions in the social order which constitute police problems with considerable boldness and finality. The accumulative strength of their views and opinions has served a useful purpose in bringing into clearer focus the existence of a problem, but it is not quite so evident that they have come forward with a useful diagnosis. . . . V. A. Leonard in POLICE ORGANIZATION AND MANAGEMENT, Foundation Press, Inc., Publisher.

THE INVESTIGATION OF DEATH

Ordinarily any death that occurs during the attendance of a physician is not investigated. Under these conditions the physician knows more or less precisely what disease the deceased suffered from, and from experience is able to foretell what the expected course would be. If this course terminates in death and is not related to any unnatural cause, he is able to give an adequate cause of death and completes the required legal forms. If the physician feels he cannot justifiably give the cause of death he will attempt to obtain a postmortem examination. The findings of this examination will indicate whether the death occurred under circumstances warranting medicolegal investigation.

Unfortunately this sequence of events may not always furnish the desired results. It is known that certain unnatural deaths may simulate natural deaths rather closely despite astute and well-meaning medical observation. These cases are usually brought to light by some unrelated observation frequently supplied by some person other than the doctor. Unfortunately, many of these cases do not come to light for some time following death. In an attempt to keep these cases to a minimum, certain requirements are usually made and are designed to limit the authority of the physician to sign the death certificate. These include stipulations that the physician must have been in attendance prior to death, that the death was the expected sequence of the disease process and that it occurred under natural conditions. Physicians are generally aware of these limitations and do not lightly undertake the signing of death certificates.

Similarly, certain types of injuries are automatically reported to the police by the attending physician. These include gunshot wounds, stab wounds, poisoning and other types of unnatural deaths.

In some localities, death occurring during the first twenty-four hours of hospitalization must be reported. Many of these cases receive a preliminary investigation and prove to be due to natural causes and are so recorded. A small number on the other hand prove to have medicolegal importance and are further investigated. . . . Dr. D. K. Merkeley in THE INVESTIGATION OF DEATH, Charles C Thomas, Publisher.

POLICE RECORD SYSTEM INDISPENSABLE

The purposes of police records are varied. If they yield no other return they can at least provide an official memory of police operations. While this aim is extremely modest, it is nonetheless important, and no police force worthy of the name has succeeded in conducting even the simplest of its affairs without in some degree enlisting the aid of recorded facts. Some forces also employ records for what is often viewed as the melancholy business of preparing an annual report. Whether or not such public accountings for police operations and for money expended succeed in interpreting police methods and objectives to the public at large, both tradition and sound sense dictate that they must be embellished with what are loosely known as "statistics"; tabular statements cannot safely be improvised, but must be compiled from data regularly recorded.

Another and more ambitious purpose of a records system is disciplinary in character. In complex undertakings performed by many men, precision and certainty in action and control over far-flung operations can be secured in some degree through a requirement that the manner of performance shall be so recorded that the written record can be summarized, tabulated, and otherwise adapted to the needs of administrative review. With the aid of reliable control records an alert administrator can project his policies and the driving force behind them much further than would otherwise be possible.

A fourth purpose of records is more ambitious still; it involves the use of records in the analysis of emerging

situations, in the anticipation of problems and the development of plans—not under the compulsion of immediate necessity and without regard either for the past or for the next succeeding development, but rather in calm and calculating detachment. Here is administration in one of its higher forms; here abstractions are dealt with in terms of reality; here a course of future action is carefully plotted to meet issues halfway and before they have reached critical proportions.

These four objectives toward which police records may be directed constitute successive levels in record-keeping. They start with the simple forms which satisfy the rudimentary requirements of the official memory, and progress through the intermediate stages of annual reporting and administrative control toward the final goal where engineering, accountancy, and crystal-gazing meet and mingle on equal terms. The vast majority of police forces never advance beyond the first level, others timidly essay the second, but only the hardy few push on to securing through records a more effective administrative control and a bolder treatment of emerging problems. . . . Bruce Smith in the Foreword to POLICE RECORDS, THEIR INSTALLATION AND USE, by O. W. Wilson, Public Administration Service, Publisher.

PLANT SECURITY A MAJOR OPERATION

The field of plant protection is rapidly becoming a major industry in itself. Large industrial plants have security organizations numbering hundreds of personnel, and even small businesses avail themselves of private patrols for night watch services and special occasions. Modern business executives realize that the margin between profit and loss—between success or failure—is often determined by the care with which management watches those activities that drain away the profits of the company.

The loss of lives and property from fires, thefts, accidents, and various types of disasters can be minimized if the proper organization and planning are brought to bear on potential security problems before they become actualities and get out of control. It is good insurance for business and industry to establish security organizations to guard them from consistent or overwhelming losses.

A good security organization also acts to keep a company "on its toes" by helping to raise the general level of morale. It does this by: (1) reducing the inconvenience and personal loss suffered by employes because of thefts of their coats, tools, money, and other personal articles, (2) reducing the number of lost-time injury accidents with its consequent pain and suffering, loss of income, etc., and (3) by letting the employes know that management has their best interests at heart and is interested in their safety and well-being.

As new advances are made in technical fields and in the general know-how of plant protection, business will continue to gain from the savings thus effected. It is to be hoped that the day is not far off when the knowledge of security methods and procedures will have advanced to the point where management can be secure in the belief that its security organization has reduced wasteful losses of this kind to an absolute minimum and that the full efforts of the company can be exerted toward the successful manufacture, warehouse, and sale of its products. . . . B. W. Gocke in PRACTICAL PLANT PROTECTION AND POLICING, Charles C Thomas, Publisher.

THE FIERCE LIGHT THAT BEATS ON THE WITNESS STAND (OSBORN)

Oral testimony is probably the least authentic of any evidence presented in the courts, not because witnesses are inclined to tell untruths, but primarily because of differences in their powers of observation. Two persons who have witnessed the same act, may give different versions of the occurrence, which are in almost direct conflict. This may be due to the position from which they observed the occurrence, or it may be due to their different powers of perception or observation. It is not intended that the reader draw the conclusion that oral testimony cannot be properly evaluated due to this condition. It is intended to show that there may be considerable difference in the testimony of persons who have observed an act under similar conditions.

Although oral testimony may be considered least authentic, it is the basis of nearly all evidence presented in the courts. It can be conservatively estimated, that better than 99% of all evidence, presented in the courts of this country, is presented by oral testimony. Testimony is often the only means by which the officer can present to the court what he has seen, heard or found, in reference to a case. The necessity for oral testimony is readily evident. It is necessary, for the officer and other witnesses, to present a clear understanding of the circumstances and conditions of the offense charged, so the judge and jury may properly evaluate the evidence in determining innocence or guilt.

Why men, who perform deeds much more difficult and far more treacherous in their daily work, have such a fear of the courts, is hard to understand. Perhaps they have not had the opportunity to appear as a witness and have a feeling of inadequacy. Many officers may never become public speakers, but they should have sufficient confidence in their ability to testify, to give them the assurance necessary to overcome the feeling of fear and apprehension that often accompanies court appearances.

Experience is the best teacher, but before experience can be gained, it is necessary for the officer to appear as a witness. The first few appearances may be difficult, but as the witness becomes more familiar wth the procedures in the courtroom, he will be more at ease. . . . Floyd N. Heffron in THE OFFICER IN THE COURTROOM, Charles C Thomas, Publisher. ★★★

STATISTICS FOR POLICE EFFICIENCY

Current Issues in Uniform Crime Reporting

By Prof. John I. Griffin

THE consultant committee on Uniform Crime Reporting, appointed by the Federal Bureau of Investigation to make an over-all study of the program of crime reporting, has recently submitted its report. Its findings and recommendations will be discussed in detail in the next issue of POLICE. Meanwhile a brief review of the development of the Uniform Crime Reporting program and some recent problems, which have arisen, will be useful.

HISTORICAL DEVELOPMENT

Crime reporting is now recognized as an essential police management tool, but the tool has not been available until comparatively recently. As early as 1870 Congress sought to provide a system of crime reports on a national basis but the attempt was a failure. In 1871, the National Police Association attempted to function in the data-collecting role but without success. From time to time, statisticians and criminologists would call attention to the lack of any useful crime statistics but no definite steps were taken to establish a program until 1927. In that year a Committee on Uniform Crime Records was established by the International Association of Chiefs of Police. A thorough study of the problem of crime reporting was made by a staff of experts under the direction of the late Bruce Smith of the Institute of Public Administration.

The technical work of the study staff included a thorough investigation of the definitions used for the various offenses into which crimes might be classified. Extensive research was necessary if comparability was to be achieved in crime statistics collected from various local police agencies operating under different statutes. A uniform classification of offenses was established, providing for Part I for major crime categories and Part II for all other offenses. The classification has continued in use virtually unchanged down to the present. The Committee on Uniform Crime Records of the IACP published a manual on Uniform Crime Reporting in 1929 and it is the predecessor of the manual and handbook published in later years by the FBI.

The actual collection of monthly crime reports began in January 1930, with the reports being sent to the Committee of the IACP. An Act of Congress, approved June 11, 1930, authorized the FBI to assume the function of collecting and compiling crime reports. In September of 1930 the program was turned over to the FBI and since then 28 volumes of Uniform Crime Reports have been published. These reports are issued in two parts. Number one, which is released in the fall of the year, covers the first six months of the year. Number two, which is released in the spring of the following year, is called the Annual Bulletin and contains data for the entire previous year. Thus, Volume XXVIII, Number 2, the Annual Bulletin for 1957 was released on April 23, 1958.

RESPONSIBILITY FOR REPORTS

The volumes of the Uniform Crime Reports contain a significant statement which bears upon the problem of "policing" a statistical program of this type. The statement reads "Returns which obviously are incomplete or defective are excluded from the published figures. . . . Failure of a contributing agency within a reasonable time to correct a demonstrated deficiency of its reporting is brought to the attention of the Committee on Uniform Crime Records of the IACP which acts in an advisory capacity in this program. In publishing the data sent in by chiefs of police in different cities, the FBI does not vouch for their accuracy." This makes clear that the program of crime reporting is essentially a voluntary one and under the advisory guidance of the chiefs' association. From time to time reports received from cities were omitted from the published tabulations on the ground that the crime reporting for the city did not meet acceptable standards. The "statistical ax" has fallen on both large and small cities in the course of the history of the Uniform Crime Reports. Mr. A. E. Leonard, Chief of the Statistical Section of the FBI, writing about the reports in an article published in January 1954, remarked that hundreds of visits to

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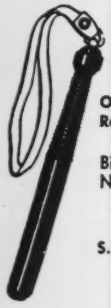


police departments have been made by representatives of the FBI and in some cases by representatives of the IACP committee. He cites a recent year in which 1,654 annual returns from city police departments were used in preparing the published tabulations and 441 of them were the subject of correspondence with the contributing department. In general, observers of the system have felt that the FBI, since it is itself a law enforcement agency, is in an excellent position to operate a statistical service of this type on a cooperative basis.

RECENT PROBLEMS

At the Sixty-Fourth Annual Conference of the IACP held in the fall of 1957, Chief Jeremiah O'Connell of St. Louis, Missouri, Chairman of the Uniform Crime Records Committee, called attention to published criticisms of the crime reporting system. He also pointed out that Director John Edgar Hoover, of the FBI, feels that contact work by special agents of the FBI, visiting local police departments and delving into their records in an effort to improve crime reporting "places the FBI in the position in effect of policing the police." Mr. Hoover's position was that record surveys and the auditing of the accuracy of crime reports should be handled by a field staff of the IACP. This would place enforcement aspects of the program with the police themselves. The Committee, headed by Chief O'Connell, endorsed the position of Mr. Hoover and recommended the obtaining of funds necessary to establish a field staff at IACP headquarters. The Committee reported that if such a field staff was not quickly set up "it will be necessary for the FBI to take immediate steps to withdraw from the Uniform Crime Reporting program." The IACP approved a resolution providing for immediate steps toward the establishment of a field staff to work under the supervision of its Committee. Such staff and the Committee were to have three responsibilities:

1. Accept responsibility for the accuracy of the data forwarded by the members of the IACP to the FBI for publication and to accept and answer candidly all criticism directed toward the program;

2. To visit periodically reporting agencies and audit reports submitted as the need is indicated in liaison with the FBI;

3. To conduct record system surveys as requested by local authorities.

PUBLISHED DATA

The pattern of published data in the Uniform Crime Reports is well established. In the some 125 pages of the two annual issues, the data are presented in terms of crime trends, crime rates, number of offenses in individual areas, offenses cleared and persons arrested, characteristics of persons arrested, and police employee data. In respect to the number of crimes, it is clear that, in the nature of things, there can be no complete data on total crimes. There can only be data on offenses known to the police and persons arrested. For the Part I category, which refers to major crimes, "offenses known to the police" are reported. In the case of Part II offenses, only arrest information is collected since this category includes types of crime which do not readily come to the attention of the police and therefore do not become "offenses known."

The published data on crime trends reflect the absolute magnitude of the crime problem. Crime rates, which relate the number of crimes to the size of the population, reflect the relative magnitude of the crime problem. We have become accustomed in recent years to seeing an increase in both the absolute and the relative magnitudes of crime. These two magnitudes, however, do not in themselves indicate the efficiency of a police force. The published figures on offenses cleared by arrest provide the most important measure of efficiency. Since Part II offense data is limited to arrest information, it is possible to compute clearance rates only for Part I crimes. Although the Uniform Crime Reports explicitly warn against making comparisons, the temptation is no doubt always present to compare the experience of one's own department with the published rates. The data on the number and characteristics of persons arrested suggest many comparative studies which may be made by local departments. The police employee data, particularly those relating to the number of police per 1,000 inhabitants, suggest certain "standards" of policing.

ANALYSIS OF PUBLISHED DATA

The 45 tables of data, currently published in the Uniform Crime Reports, constitute a repository of statistical data. Like the reporting procedures followed by the United States Bureau of the Census in their published volumes resulting from the decennial Census of Population, the FBI offers only a minimum of analysis. This is no doubt proper procedure for an agency of the Federal Government, whose first business is to put into print the results of the reports which it receives. At the same time it has been recognized that detailed analysis of the published data is necessary to determine uses to which the data may be put, inadequacies in the data and methods for improvement. Perhaps the series of volumes called the Census Monograph Series, published by the Social Science Research Council in cooperation with the Bureau of the Census, points the way. The FBI consultant committee report on Uniform Crime Reporting may well be thought of as the first step in the

direction of the kind of professional evaluation which has long been recognized as essential in other areas of statistical reporting.

AT RANDOM . . .

Crime in London

The report of the Commissioner of Police of the Metropolis of London (New Scotland Yard, that is) reflects a 15.8 per cent increase in the number of indictable offenses in 1957 as compared with 1956. The number was 125,754 or a rate of 15.2 per thousand persons, compared with a pre-war average of 10.5 per thousand persons. However, the total number of offenses in London for 1957 was 2.5 per cent below that for the peak year of 1945. If 1958 continues the upward trend which began in 1955, there is little doubt that this year will record a new peak in the number of offenses. The increase in housebreaking, shopbreaking and larcenies from vehicles was most marked. With an estimated population in Greater London of 8,250,000 only 29 murders were recorded in 1957. There has been, however, a steady increase in the number of cases involving wounding, a 20.8 per cent increase being reported in 1957 over the previous year. Although British behavior, even of the criminals, remains characteristically nonviolent and the police remain unarmed, there is an indication of a substantial rise in crimes of violence. This somber fact is a cause of concern for the London Force, which, with a strength of about 15,000 is suffering from a deficiency in excess of 3,000 men.

So Sorry!

Newspapers have recently reported from Philadelphia a chain of errors which kept a woman in the House of Correction for six months without a hearing. The principal culprit was the operator of a card punch machine who listed the woman as code 0011 (the code for riotous destruction of property) rather than as code 11 (material witness). ★★★

Police Training Officers Hold Conclave

OVER a hundred American and foreign police officials attended the New York City Police Department's ten-day Institute for Police Training Officers held recently.

Police Commissioner Stephen P. Kennedy opened the Institute by delivering a welcoming address to the attending police chiefs and other police officials. Police Departments of five foreign countries, including Canada, the Philippines, Peru, Turkey and Vietnam, twenty states, the District of Columbia, Puerto Rico and Hawaii were represented at the sessions of the Institute.

The Institute consisted of all-day sessions, designed to acquaint police chiefs with methods of training police training officers and with the desired content of police training programs. Various sessions covered such subjects as "Police Training Needs," "Evaluating and Developing the Instructor," "Recruit Training," "The Police Bulletin as a Training Medium," "Training for Traffic Control and Accident Investigation," "Training the Criminal Investigator," "Training for Youth Work," "Command and Executive Training Courses," "Teaching Human Relations," and "Field Training."

The needs of smaller, medium-sized and larger police organizations were discussed and there were panel discussions on police training needs and training for traffic control and accident investigation.

In addition to twenty-three officers of the Police Department, course instructors and discussion leaders included representatives of the Federal Bureau of Investigation, the U.S. Army, other Police Departments and five universities.

Among the visiting instructors were Arthur F. Brandstatter, Director, School of Police Administration and Public Safety, Michigan State University, and Chairman of the International Association of Chiefs of Police Training Committee who spoke on "Police Training Today." Inspector Jeptha S. Rogers, of the FBI National Academy talked on the "Role of the National Academy in American Law Enforcement."

William J. Toth, of the Center for Safety Education of New York University, conducted a panel discussion on "Training for Traffic Control and Accident Investigation," along with Deputy Chief Inspector Paul B. Weston, Commanding Officer of the Special Traffic Enforcement Squad and Lieutenant Jerome J. O'Neill, officer in charge of the department's Traffic Education Unit.

Henry J. Mulhearn, administrative director of the New York State Youth Commission, and on leave as a Captain of the Police Department, spoke on "Training for Youth Work." Norman H. McCabe, Assistant Supervising Agent in charge of the New York FBI Office, spoke on "Tactical Training." Morris D. Forkosch, Professor of Law at Brooklyn Law School, covered the topic, "Teaching the Criminal Law." Emanuel Saxe, Dean of the Bernard M. Baruch School of Business and Public Administration of the City College discussed "What the University Can Bring to the Police Training Task," and General Haydon L. Boatner, the Provost Marshal General of the U.S. Army, spoke on "Perspectives in Major Police Training."

Among the police chiefs who conducted sessions of the Institute were Chief Raymond R. Ninesling, Kings Point Police Department; Sheriff Charles C. McCloskey of Chautauqua County; Michael J. Murphy, Executive Director, Waterfront Commission of New York Harbor; and Chief Francis V. McManus, New Haven, Connecticut.

Deputy Chief Inspector Michael J. Ledden, Commanding Officer of Queens Borough Patrol and Inspector Robert R. J. Gallati, Commanding Officer of the Police Academy, who planned and developed the Institute, also participated. ★★★

NEWS and ANNOUNCEMENTS

An Editorial

THE CASE OF THE IVORY TOWER

LAW enforcement circles in this country take a dim view of spiraling crime rates that have characterized the past quarter century. Despite crime laboratories and lie detectors, vastly improved methods of criminal investigation, acceptable salary structures attracting a higher calibre of personnel into the American police field than ever before, and a gradual shift in police emphasis from a punitive to a preventive philosophy; despite accelerated yields from research in the behavior sciences and despite the impressive gains made by correctional administration in recent years, we have lost ground and we are continuing to lose ground. Each year, the crime balance sheet goes further in the red, with new crime rates surpassing all previous records. Avail- new crime rates surpassing all previous records. The record for 1958 reveals an all-time high in this senseless trail of blood, violence and stealth, with its heavy social and economic loss.

The viewpoint of law enforcement in this dilemma is not one of frustration nor one of "laying-the-blame" but rather one of introspection, and upon taking a close-up look at ourselves, the discovery is made that we are altogether out of effective contact with those social institutions and disciplines that have an equal stake in the problem and a healthy capacity to contribute toward its solution. In looking about further, law enforcement finds that each of these social institutions and disciplines is largely out of effective contact with the law enforcement field, and with one another.

There is a breakdown in communication. We appear to be highly compartmentalized with each of us—law enforcement, corrections, sociology, psychology, psychiatry, the public school system, the church and others, moving in an independent orbit and within its own delimited frame of reference, largely unaware of what the other is trying to do and without regard for the fact that the problems of one are essentially the problems of the other. We should extinguish the light in those ivory towers and come on down to the ground and go to work.

Law enforcement alone cannot make any important gains in the approach to the problem of crime and the criminal, nor can psychology, sociology, psychiatry or corrections single-handed exploit effectively the important contributions they are so well prepared to make. If Little Rock thinks it has an integration problem, we should consider the monumental project in integration that confronts us. Law enforcement takes the view that a merger of resources is called for in a team approach to the problem that would pool our information and bring into effective combination our joint efforts and responsibilities.

Educated guesses place the cost of crime and the criminal in this country all the way from 20 to 40 billions of dollars per year. We pay a higher tribute to crime and the criminal than orderly government is able to raise in support of our total educational system in the United States. And it is not a credit business; the crime bill is paid for in cash. With multiplied millons of dollars going down the drain annually in an after-the-fact approach, the impact of the cost of crime and the criminal upon the economy of each state in the nation, in terms of taxation and a balanced budget, is cause for public concern. We should lend an attentive ear to any proposal, whatever the price, that would bring these disciplines in the behavior field and police administration, the courts, the correctional field and the public school system into effective combination—in a work program pointed toward a shift in emphasis and in public expenditures on upstream near the headquarters and tributaries of crime and the criminal, in a correctional operation that would establish communication in the pre-arrest period with the youngster showing symptomatic signs of oncoming behavior disorder. ★★★

NEW PEDESTRIAN BOOK RELEASED

With the goal of cutting pedestrian traffic deaths by one-half in the next five years, the American Automobile Association has announced a community do-it-yourself program.

The new program is contained in a 163-page handbook, PLANNED PEDESTRIAN PROGRAM, prepared by AAA Foundation for Traffic Safety. The publication cites examples of effective pedestrian safety measures used by cities throughout the country. PLANNED PEDESTRIAN PROGRAM is available at $2.00 per copy from the American Automobile Association, 1712 G St. N.W., Washington 6, D.C.

Among top safety officials who hailed the AAA booklet as a major contribution to the national effort to reduce traffic accidents was Chief John D. Holstrom, Berkeley, Calif., past president of the International Association of Chiefs of Police.

Chief Holstrom said: "An excellent guide for police and other officials to follow in developing and implementing pedestrian protection programs."

ADOPTS DISCIPLINARY MANUAL

Cincinnati, Ohio, has issued a manual for supervisors entitled HOW TO HANDLE DISCIPLINARY PROBLEMS. The manual deals with the entire range of penalties: spoken reprimand, written reprimand, suspension or loss of vacation, demotion, and dismissal. Emphasis is placed on avoiding the need for discipline by proper job assignment, keeping employees informed, letting employees know where they stand, providing proper tools, encouraging suggestions from employees, and other means. Other sections of the manual deal with ways of administering discipline, conducting hearings and appeals, and defining penalty actions in some detail. A transmittal letter from City Manager C. A. Harrell stresses the importance of avoiding dismissals whenever any other disciplinary measure can be used.

STATE POLICE ON MUNICIPAL DUTY

Twenty-four Connecticut towns use state policemen to provide police protection. The state statute empowers the state police to provide resident state policemen in any town lacking an organized police force. The towns pay a share of the compensation, maintenance, and other expenses for such personnel.

IACP CONVENTION EXHIBIT FEATURES UNIVERSITY AND COLLEGE POLICE TRAINING PROGRAMS

Delegates to the 65th Annual Conference of the International Association of Chiefs of Police held in Miami Beach, Florida, October 26-31, 1958, saw a new precedent set, the first of its kind in the history of the organization—an exhibit of Professional Police Education programs now under way at American educational institutions. The exhibit featured undergraduate and graduate professional police training now available at an increasing number of universities and colleges in the preparation of young men and women for career service in the police field. The exhibit was sponsored by the IACP Education and Training Committee, under the direction of the sub-chairman for exhibits, Lt. Col. William A. Wiltberger, USAF, Retired. More than fourteen universities and colleges participated, including Michigan State University, Long Beach State College, Indiana University, the University of California, the State College of Washington, University of North Carolina, Los Angeles State College, San Jose State College, Fresno State College, Monterey Peninsula College, the University of Miami, Mt. San Antonio College, Shasta College and the New York City Police Academy—Baruch School of Business and Public Administration, City College of New York.

Chief Melvin K. Meyer, Police Department, Homewood, Illinois and Lt. Col. William A. Wiltberger of the IACP Education and Training Committee discuss the growth of police training programs at the university and college level.

TEACHING OPPORTUNITY IN POLICE SCIENCE

The Police Science program at Long Beach State College, Long Beach, California, is seeking a qualified instructor to teach police science subjects. Appointments will be made at a rank and salary commensurate with prior education and experience.

Qualifications:

1. Age: 30-40.
2. Academic Background: Education should include law or public administration with emphasis in law enforcement. Master's or LL.B. degree; additional graduate work highly desirable.
3. Professional Experience: Minimum of five years police service or equivalent. Supervisory or Administrative experience highly desirable.
4. Teaching Experience: Prior teaching experience in academic, military, or in-service training programs.

Qualified parties are encouraged to apply. Write, giving brief résumé of background and experience, to:

Dr. A. C. Germann
Professor of Police Science
Long Beach State College
Long Beach 4, California

SUPER TUNE ENGINE CONDITIONER

Super Tune Engine Conditioner, a new kind of liquid lubricant, is as new and different in concept as it is in actual results produced. It performs several functions vital to proper engine care and operation.

It has the built-in ability to remove carbon, corrosion, rust gums, varnish, etc., that clog the lines, coat the working parts with abrasive-bearing deposits, and prevent the lubricating oil from lubricating.

It acts in the nature of a wetting agent with the lubricating oil, extending the areas reached by normal lubrication and amplifying the lubricating properties and coverage of the crankcase oil.

Introduced into the fuel system as well as into the crankcase, Super Tune Engine Conditioner softens and removes carbon from inside the combustion chamber, around rings and valves, removes what varnish is present, provides a constant upper-motor lubrication and a continual cleansing action to maintain the engine in top running condition.

This product is thoroughly miscible with fuel and oil,

and it stays in complete solution without floating or settling.

Normal usage is one ounce of Super Tune per quart of oil in the crankcase, and one ounce of Super Tune per two gallons of gas—or, in two-cycle engines, one ounce of Super Tune per gallon of fuel-oil mix.

Super Tune Engine Conditioner is manufactured by Super Seal Products Co., 1235 35th Avenue, Oakland 1, California. This product has been used and tested for about 18 months in engines ranging from power mowers and outboard motors to transcontinental highway trucks, foreign racing cars, motorcycles, etc. Nationwide marketing of Super Tune will begin around the first of December, 1958.

LOOKING FOR A JOB?

The Professional Council of the National Probation and Parole Association issues a mimeographed monthly bulletin announcing job opportunities in probation, parole, and other areas of the correctional field. Copies may be obtained by writing to Hugh Reed, Director, Midwestern Regional Office, 1536 Vincennes Avenue, Chicago Heights, Illinois.

CRIME IN ENGLAND ON INCREASE

The rise in indictable offenses known to the police became steeper last year according to the *Criminal Statistics* published yesterday. Whereas the 1956 firure was 9.5 per cent up on the 1955 level, that for 1957 showed a 13.7 per cent increase on 1956.

A glance at the figures since 1938 shows that the leap was the largest for two decades, and the new total—some 545,000 offenses—unsurpassed in that period, being, in fact, 4 per cent higher than the previous peak (1951) and 14 per cent above 1945.

Among all the facts perhaps the gravest is the evidence from convictions that the increase in crime was most rapid among adolescents and young people, and that violence against the person was second only to robbery and to breaking and entering as far as proportionate increases are concerned. All told, there was a 13 per cent rise in the number of people found guilty of indictable offenses.

47.2 Per Cent Cleared Up

The number of boys between 14 and 17 found guilty of indictable offenses increased during the year by about 21 per cent; with those between 17 and 21 by 26 per cent. For girls the corresponding increases were 16 and 17 per cent.

The police cleared up 47.2 per cent of the indictable offenses which came to their attention last year—50.1 per cent in 1938. People found guilty of breaking and entering increased by one-quarter over the previous year; of robbery by 28 per cent; of violence against the person by 18 per cent; of sexual offenses by 5 per cent. Between 1947 and 1957 cases of personal violence known to the police rose steadily from 4,408 to 10,960; sexual offenses from 9,999 to 18,635.

Naturally, in the year of the Homicide Act, the record regarding murder is of particular interest. Comparison with other years has been made difficult, however, by the removal from the category of certain sorts of homicide and by the introduction of diminished responsibility. This must be borne in mind when comparing the number of offenses of murder of persons aged one year and over known to the police: 151 in 1957 compared with 148 in 1956, or—when allowance is made for subsequent reduction to manslaughter by court proceedings—142 and 145 respectively.

The total for those found guilty of murder was 40 (32 in 1956) or an increase of 25 per cent; in the case of threats, conspiracy, or incitement to murder the increase was 94 per cent; in that of infanticide 45 per cent; of manslaughter 35 per cent.

The total number guilty of non-indictable offenses was 9.7 per cent higher—a rise mainly accounted for by traffic offenses (up 10 per cent) drunkenness (12 per cent), and prostitution (31 per cent). The only group here for which there was a decrease was Education Acts offenses (down 8 per cent). . . . *The London Times*, October 2, 1958.

COMBINATION ELECTRONIC SIREN P.A. SYSTEM

Federal Sign and Signal Corporation, Chicago, has designed a multi-purpose, patrol car communications aid which serves as an electronic siren, a mobile public address system, and a radio amplifier. Folger Smith, manager of Federal's New Products Division, demonstrates the new Interceptor in operation as a public address unit. With the turn of a four-position switch on the control panel (top right photo), the unit's electronic siren goes into automatic or manual action, or messages received on the car's two-way radio can be amplified through the speaker. The compact, fully transistorized 30-watt amplifier mounts easily under the dashboard. The Interceptor is equipped with a single, 7½-inch speaker which is small enough to be mounted out-of-sight between the radiator and grill of most 1958 and 1959 cars.

GREENVILLE, S. C. POLICE TEST SAFETY BELTS

Mayor J. Kenneth Cass (second from right), Police Chief Percy P. Oakes (right), and Robert E. Ellsworth (left), manager, Fiber Sales Promotion and Advertising, Allied Chemical Corporation, discuss the coming program for evaluating safety belts of Caprolan in Greenville, S. C. police patrol cars. Lt. F. H. Hawkins of the Traffic Division is shown trying the positive-action belt buckle.

Mayor J. Kenneth Cass announced that the patrol cars of the Greenville, S. C. Police Department will participate in a program to evaluate the usefulness and effectiveness of safety seat belts in police highway vehicles.

The test program is being held in conjunction with Allied Chemical Corporation, producer of the Caprolan yarns from which the belt webbings are made. Robert E. Ellsworth, manager of fiber advertising and promotion, for the company, met with Mayor Cass and Police Chief Percy P. Oakes recently to work out the details of the program.

Ellsworth pointed out that highway police of such safety-minded states as Massachusetts and California already have made the use of safety belts mandatory in their vehicles. He also declared that the extensive traffic accident investigations conducted by Cornell University, the American College of Surgeons and other interested groups, revealed that statistically there is a fatality or serious injury in auto accidents every fifteen seconds. Most of these occur in local traffic at speeds under 40 miles per hour.

"The studies indicated that more than 60 per cent of the victims would have escaped unhurt had they been using seat belts," Ellsworth said.

"Allied Chemical has equipped its own cars and trucks with seat belts and recently made them available, at cost, to its 32,000 employees," Ellsworth stated.

These belt webbings, which have a breaking strength of nearly 6,000 pounds, in contrast to the 2,250 specified by the Civil Aeronautics Administration, are woven of Caprolan, a new kind of nylon developed by Allied Chemical, and are the belts approved for use in such cars as Mercury, Edsel and Lincoln.

CALIFORNIA POLICE-COMMUNITY INSTITUTE HOLDS SESSIONS

The Second Annual Police-Community Institute was held on the Los Angeles State College campus November 12 and 13. Members of the Institute planning committee are: Professor William F. Fitzgerald, Loyola University, Professor A. C. Germann, Long Beach State College, Professor G. Douglas Gourley, Los Angeles State College, Deputy Curtis Howard, Los Angeles County Sheriff's Department, Captain Nathan F. Iannone, Los Angeles Police Department, Professor John P. Kenny, University of Southern California, Inspector Noel A. McQuown, Los Angeles Police Department, Lieutenant E. L. Recknor, Los Angeles County Sheriff's Department, Deputy Chief Frank E. Walton, Los Angeles Police Department, and Dr. Jacob H. Cunningham, Executive Director of the Southern California Region of the National Conference of Christians and Jews.

The Institute is co-sponsored by Long Beach State College, Los Angeles State College, and the University of Southern California in cooperation with the National Conference of Christians and Jews. It is endorsed by the Los Angeles County Peace Officers Association, the Orange County Peace Officers Association, and the Southern California Juvenile Officers Association.

Ponty stated that the theme of the Institute is Police-Community Cooperation, Its Effect on Metropolitan Change. "We live in an age of complexity and tension. If the welfare of all is to be served we must understand our problems and find remedies based on facts." Ponty continued, "Law enforcement officials must understand their communities, and community leaders must understand the problems of peace officers." Ponty reported in announcing the Institute, that the National Police Community Relations Institute, a joint effort of Michigan State University and the National Conference of Christians and Jews, held for the past four years had served as the stimulator of institutes patterned after the National Institute in many of the larger cities in the nation. He added that the Southern California Regional Office of the National Conference had provided travel and tuition scholarships to community leaders and peace officers each of the years the National Institute had been held. Deputy Chief Frank E. Walton, Professor G. Douglas Gourley and Deputy Curtis Howard were awarded Conference scholarships to the National Institute this year. Interested readers should contact the National Conference Office, 3335 Wilshire Boulevard, Los Angeles for further information about the program.

SIREN AMPLIFIER HAS UNIQUE FEATURES

Newly-introduced to the communications industry is this siren and voice amplifier combination now being marketed by the General Electric Communication Products Department, Syracuse, N. Y., for use with mobile radio systems.

The equipment improves the loudness of sirens and voice transmissions where needed, but does not have a

corresponding increase in the amount of current drained from mobile power sources.

For siren applications, instant stopping and starting of the warning signal is made possible by an ON-and-OFF switch which eliminates build-up and run-down problems. This feature will be especially important in "quiet" areas, such as hospital zones, where a municipal vehicle may want to shut its siren off. Completely transistorized, the equipment is designed for 20-watt operation. It may be used in connection with communications systems of police and fire cars, ambulances or other emergency vehicles and permits operators to hear calls while working some distance from their vehicles.

NEW FINGERPRINT TECHNIQUE

A by-product of a battlefield casualty identification development shows promise of contributing another weapon to the growing arsenal of crime detection.

A quick-drying plastic spray developed by Atlantic Research Corporation, Alexandria, Virginia, under a Quartermaster Corps contract has been found to produce more sharply defined reproductions of latent prints than methods now in use by police and investigative agencies. The film produced by spraying the plastic over a dusted print may be readily stripped from the object sprayed and may be stored indefinitely in a master record file. Excellent photographic reproductions may be made from the master print.

Reproduction detail in fingerprints made by standard ink impression (left) and the new plastic spray technique (right) developed by Atlantic Research Corporation are compared in these photographs. Ridge detail is more complete, and the full depth of the fingerprint contour is shown. Scars and similar positive points of indentification show much more prominently in the spray impression method. While latent print impressions picked up by the spray method obviously do not have the detail obtained by a direct spray cast from a finger, they show substantially greater detail than prints made with tape methods.

Sergeant Donald G. Mooney of the Alexandria, Va. Police Department demonstrates the plastic spray fingerprint technique developed by Atlantic Research Corporation for investigative agencies. The film deposited by the spray technique produces more detailed reproductions from latent prints than methods now in use. The plastic spray formulation was first worked out by Atlantic Research under a Quartermaster Corps contract to improve methods for battlefield identification of war casualties.

Since the latent print itself is often partially smudged, the more faithful reproduction technique will result in positive identification of a larger number of fingerprints left at the scene of the crime or accident.

The spray fingerprint technique developed by Atlantic Research is also considered by the Army as an important additional method for the identification of war dead. Designed for use by battlefield casualty teams, the liquid plastic compound will be sprayed or dipped on the fingers of military war dead. The plastic is almost indestructable, and provides a positive identification for initial battlefield interments and in subsequent recovery operations by the Graves Registration Service. The Army expects to use the plastic cast technique in addition to the standard identification methods, including identification tags, now employed. The new spray compound, as proposed for use by the Army, would eliminate one of three fingerprint kits now in the military supply system and reduce the components required for these kits.

Atlantic Research is currently working out arrangements to make spray fingerprints kits commercially available to police departments and other organizations having uses for the new method.

BREATH TEST RULING UPHELD BY CANADIAN SUPREME COURT

The Supreme Court of Canada recently upheld legislation enacted by the Province of Saskatchewan requiring suspected drunken drivers to undergo a breath test or face suspension of their drivers' permits.

The high court's decision follows a ruling of the Saskatchewan Court of Appeals which decreed earlier this year that the legislation as originally passed in 1957 was constitutionally valid.

The Supreme Court unanimously ruled that any evidence acquired under the Saskatchewan legislation as a result of a breath test can be introduced in evidence at a trial for drunken or impaired driving under the Criminal Code.

The breath test involves a device for testing a sample of the suspect's breath. Two well-known instruments for this purpose are the Harger Drunkometer and the Borkenstein Breathalyzer. In both instruments a sample of the breath of the accused is subjected to chemical analysis to indicate the amount of alcohol, if any, present in his system.

POLYGRAPH MAN ON PROMOTION LIST

Promotion and transfer of one Michigan State Police polygraph operator and the transfer of two others has been announced.

Advancement to the rank of detective sergeant was given to Detective William Menzies. He is transferred from 5th District Headquarters in Paw Paw, Michigan to 6th District Headquarters, Rockford, Michigan.

Menzies enlisted in the Michigan State Police on September 26, 1941, and served at posts in Gaylord, White Pigeon and Paw Paw until December 30, 1951 when he was promoted to Detective and transferred to Paw Paw District Headquarters. He has two citations for meritorious service.

Transferred to East Lansing Headquarters from Second District Headquarters, Detroit, is Detective Sergeant Jack Pletzke, who will succeed Lieutenant Wilbur Peterman as Lie Detector Operator in the special investigation squad. Peterman retired on February 2, 1958.

Succeeding Pletzke at Second District Headquarters is Detective Frank Barkman, who was transferred from Sixth District Headquarters.

THE IN-RESIDENCE REQUIREMENT GOES DOWN FOR THE COUNT

San Diego, California, in an effort to obtain 100 additional police patrolmen, recently initiated a major recruiting program which extended to a nationwide scale. After intensive advertising, a staff assistant and a member of the San Diego police department interviewed 145 potential candidates in Chicago. These men took the regular written, strength, and oral examinations, and 35 of them passed the complete series and were offered jobs. This represented a higher passing percentage than was obtained in the San Diego area. Meanwhile in San Diego the city used display ads in the sports sections of the major local newspapers, daily classified ads, feature stories on recruiting in the major dailies and 60 neighborhood and county newspapers, and spot announcements on all local radio and television stations. New residents received welcome letters which stressed the need for police candidates and provided general information on other opportunities of city employment. A civil service commission staff member toured a newly annexed area which would require the majority of additional police personnel and posted bulletins in stores and public buildings. All patrolman positions were filled with acceptable candidates.

In Phoenix, Arizona, only eight men qualified for appointment as police recruits out of 63 applicants. A two-day examination was given and included written, oral, and physical fitness tests. Residence requirements were waived, and applications were received from throughout the country.

OUR CROWDED PRISONS

Increase in Confined Prisoners

On December 31, 1957 a total of 195,414 prisoners were confined in State and Federal prisons and reformatories for adult offenders. This was the highest year-end prison population on record, and an increase of 5,849 or 3.1 per cent over the previous year. For the country as a whole there were 116 prisoners per 100,000 of the civilian population serving sentences in State and Federal institutions. This was a slight increase over the years 1955 and 1956 when the rate stood at 115 per 100,000 of the population, but nonetheless smaller than the 138,132 and 126 per 100,000, respectively, serving sentences in these institutions at the close of 1939, 1940, and 1941.

The rise in prison population in 1957 was proportionately greater in State than in Federal institutions. Prisoners in State institutions numbered 174,994 at the end of 1957, up from the previous year by 5,563, or 3.3 per cent. In Federal institutions the population rose to 20,420, an increase of 286 or 1.4 per cent.

Thirty States had increases in prisoners confined. Of these, seven registered substantial increases. These were New Mexico with a 16.2 per cent increase; Florida, 11.0; Arizona, 10.7; Indiana, 9.0; Texas and California, 8.9 each, and Wyoming 8.0.

Court Commitments

Increased commitments from the courts to State institutions accounted in part for the growing prison population. In 1957, the number reached 67,103, greater by 4.2 per cent than the 64,415 commitments in 1956.

Each of the four regions shared in the increase with the West registering the greatest, 7.8 per cent. Next were the North Central States with an increase of 6.9 per cent; the South, 2.9, and the Northeast, 0.5.

Thirty-seven States had increases in court commitments over 1956. Though Delaware led the States with a 30.5 per cent increase over the previous year, this was because during the last six months of 1956, and all of

1957 court commitments to two additional institutions, the Kent and Sussex County Workhouses, were included with those of the Newcastle County Workhouse, a continuous participant in this series. Thus Delaware's court commitment, as well as its prisoner population figures for 1957 are not generally comparable with those of prior years. Other States with sizeable percentage increases in court commitments over the previous year were New Mexico, 26.7 per cent; West Virginia, 22.2; Vermont, 20.9; Wyoming, 18.4 and Louisiana, 16.4.

For the second year Federal court commitments dropped, but only slightly. In 1957 Federal commitments numbered 13,305, as compared to 13,454 in 1956. As noted in 1956, the continued fall-off in court commitments was due to the lesser use of imprisonment for immigration violators. However, reduced commitments were not reflected in the year-end Federal prison population. Longer sentences and longer periods served maintained the population of Federal prisons above the 1956 level.

Female Prisoners

The number of female prisoners confined in State and Federal institutions at the close of 1957 was 7,301 as compared to 7,375 on the same day in 1956. This one per cent decrease can be partly attributed to a decline in female court commitments which numbered 4,093 in 1957 as compared to 4,204 in 1956.

Releases

Conditional and unconditional releases from State institutions numbered 71,327 in 1957, up 2,513 or 3.7 per cent over the 68,814 in 1956. This increase was not sufficient, however, to offset the effect on the prison population of the increase of 4.2 per cent in court commitments.

Paroles

Paroles from State institutions accounted for 39,535 or 55.4 per cent of all releases during 1957, about the same proportion as in 1956.

Of the four regions, the Northeast used parole most extensively; 75.5 per cent of its releases were by parole. The West, as in previous years, almost equalled the Northeast in the use of parole; 74.5 per cent of its releases were by parole. Washington State in this region led the United States in the use of parole, 98.9 per cent. In the North Central States paroles constituted 67.7 per cent of all releases, and in the South 30.7 per cent.

Escapes

Escapes from State institutions totaled 2,210. Escapees returned, though not necessarily those who escaped during 1957, numbered 2,139. Among the States there continued a great disparity in reported escapes. North Carolina, which operates an extensive road-camp program showed the most escapes, 466, with 409 escapees returned. Only North and South Dakota, Rhode Island and Vermont reported no escapes.—*Federal Bureau of Prisons.*

LAWSON TAKES FOREIGN ASSIGNMENT

Robert H. Lawson, personnel officer for California's department of corrections, has been granted a leave of absence to become advisor on personnel administration and inservice training with the Institute of Public Administration in Bangkok, Thailand. The assignment is under the technical assistance program conducted through the International Cooperation Administration of the United State Government.

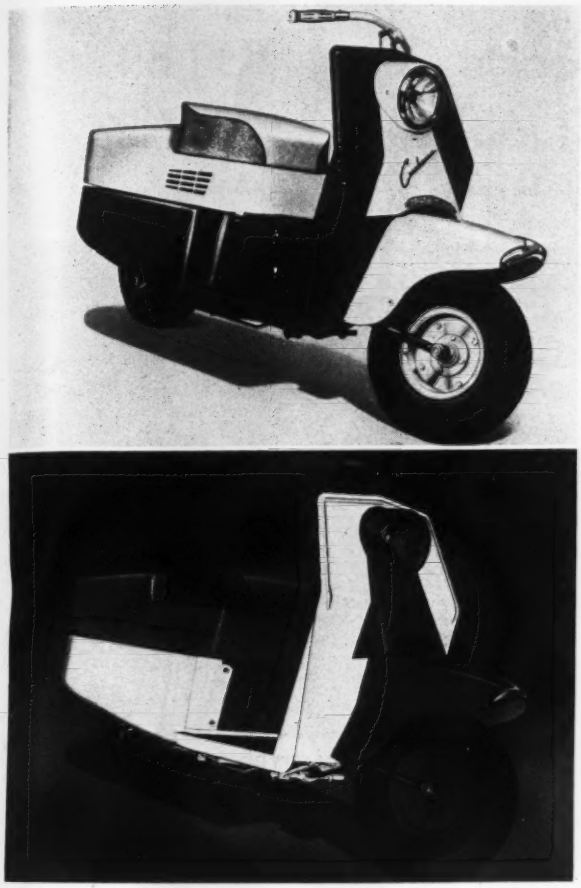
FLORIDA LAUNCHES DELINQUENCY CONTROL INSTITUTE

Florida has initiated a Delinquency Control Institute sponsored by several law-enforcement agencies and conducted jointly by the Florida State University and the General Extension Division of Florida. It is designed for 12 weeks, divided into three 4-week sessions to operate in the summers of 1958, 1959, and 1960. Vernon Fox, Ph.D., professor of criminology and corrections in the school of social welfare at the State University, is director of the institute.

O'CONNOR ON NEW ASSIGNMENT

George W. O'Connor, formerly of the Oakland Police Department, has accepted the position as Chief Investigator for the Cuyahoga County Coroner's Office in Cleveland, Ohio, and in addition, is a member of the faculty of the Law-Medicine Center of Western Reserve University in the same city. O'Connor received the A.B. degree at Dartmouth College and is now completing the requirements for the Master's degree in Criminology at the University of California. He served with the Oakland Police Department for twenty-two months as patrolman assigned to patrol, jail, radio, juvenile and planning and research, resigning in January 1958 to accept his present position.

Responsibilities on his present assignment include administering the Suburban Police Schools conducted by the Law-Medicine Center and the investigation of suspicious deaths within the county, public safety survey work and personnel screening for local law enforcement agencies. His many friends in law enforcement circles join with the JOURNAL in extending to him best wishes on this new assignment.



MORE LIGHT AT NIGHT

More light at night is the purpose of the new reflective finish called "Reflecto-Lite," shown above in one of its first applications. The finish, developed by Minnesota Mining and Manufacturing, St. Paul, Minn., shows up during daylight (top) in a variety of colors, all of which reflect brilliantly at night (bottom) in the headlights of other vehicles. Cushman Motors has introduced the safety coating on its motor scooters. Bicycle and automobile manufacturers also are experimenting with the new product. Public Relations Dept., Cushman Motors, 2900 Guardian Bldg., Detroit 26, Michigan.

SPANGLER REPORTS ON NEW ASSIGNMENT

James A. Spangler, consultant with the western office of the National Probation and Parole Association in San Francisco, has been appointed administrative officer of the California Adult Authority. He reported to his new assignment on April 28.

ATTORNEY GENERAL ANNOUNCES PLAN FOR COMBATING ORGANIZED CRIME

Attorney General William P. Rogers announced in April a long-range plan for combating organized crime in the United States. The plan calls for the concentration of information and investigative effort on professional criminals and racketeers with the highest priority given to a hundred of the top racketeers. Information will be gathered from each of the cooperating investigating agencies and will be analyzed by lawyers of the Criminal Division.

The organized crime and racketeering section of the Criminal Division will be expanded and strengthened. To give initial impetus to the program a special group, including several former assistant U. S. attorneys, will be added to the Criminal Division.

The Federal Bureau of Investigation will investigate the federal crimes within its jurisdiction, the principal statutes being Hobbs Anti-racketeering Act, Obstruction of Justice, Extortion, and Interstate Fraud by Wire.

The Treasury, with its various investigative agencies, will give full cooperation. Many offenses committed by racketeers fall within the investigative authority of the Bureau of Narcotics, the Internal Revenue Service, and the Secret Service.

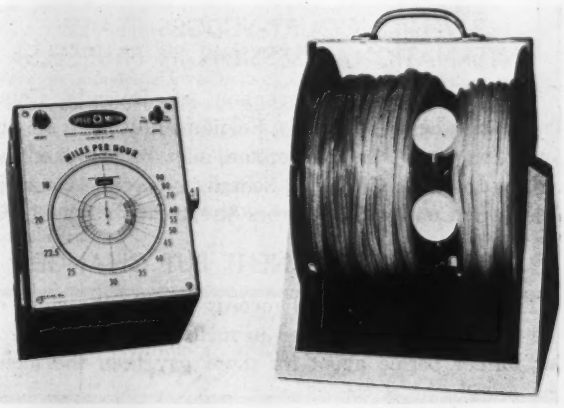
The special group will first analyze the pool of information on the 100 top racketeers now available from all the investigative agencies. Thereafter they will request additional investigation along lines suggested by the examination and they are authorized to request the convening of an investigatory grand jury. This is not planned to supplant the work now being done by the U. S. attorneys in the field or the work of any investigative agencies or their techniques, but rather to implement that work.

The Justice Department will urge Congress to take action upon legislation previously recommended by the Department. H.R. 4917 and S. 1368 designed to broaden the Johnson Act, which prohibits the interstate transportation of gambling machines, have been presented to the Congress. Also, H.R. 5125 and S. 1367 prohibiting the interstate transmission of gambling information have been previously proposed.

ONE-MAN KEMCO SPEED-O-METER

W. B. Kidder Engineering and Manufacturing Company announces its ALL new ONE-MAN KEMCO Speed-O-Meter used by municipalities and state police for effectively controlling speed and traffic on the streets of their own communities.

Advanced engineering and design has successfully



overcome many of the disadvantages of present day equipment and has developed many new and exclusive features which are being offered for the first time as standard equipment, and which are not available on other brands of speed meters. Among these Exclusive Features are:

1. MINIATURE ROAD TUBES. . . . Virtually invisible. . . . Smaller in diameter than an ordinary lead pencil. . . . Manufactured from durable ALL WEATHER clear plastic.

2. INDESTRUCTIBLE ROAD SWITCHES WITH NO MOVING PARTS. . . . Operate in any position. . . . May be run over without damaging. . . . Completely sealed from dirt and foreign elements.

NO MOVING PARTS to level, lose resiliency, carbonize, become dirty and stick, or wear out. . . . No delicate adjustments to make.

3. INTEGRAL ELECTRICAL CABLE, SWITCHES AND ROAD TUBES. . . . One continuous piece. . . . Nothing to hook-up or disconnect.

4. NO ELECTRICAL SWITCH CONNECTORS TO BREAK OR SHORT OUT.

5. COMPACT LIGHT WEIGHT REEL. . . . Weighs less than 40 pounds complete with electrical cable, switches, road tubes, and tube weights.

The Speed-O-Meter automatically records the speed of a vehicle traveling through a fixed distance. As the front wheels of a vehicle pass over the first of two road tubes, it actuates an electric circuit which starts a stopwatch located 250 to 500 feet beyond the road tubes. When the front wheels of the vehicle pass over the second road tube the watch is stopped, and the speed of the vehicle indicated on the dial both in time and in MPH. The operator then has sufficient time to observe the reading which is held on the meter and step to the side of the road and flag down any violators. It is extremely accurate, is very simple and easy to operate, and is moderately priced at $480.00 complete and ready to operate with no extra installation or calibration necessary.

For additional information on the ALL new ONE-MAN KEMCO Speed-O-Meter write to the W. B. Kidder Engineering and Manufacturing Co., 2140 Waite Avenue, Kalamazoo, Michigan.

JUVENILE COURT JUDGES STAGE INTERNATIONAL SESSION IN BRUSSELS

The International Convention of Juvenile Court Judges was held at Brussels, Belgium, July 14 to 18. Information about the convention may be obtained by writing to Judge Gustav L. Schramm, Juvenile Court of Allegheny County, 3333 Forbes Street, Pittsburgh 13, Pa.

NOTHING PERMANENT BUT CHANGE

The Iowa Parole Board records include the story of the parolee who made good in such a big way he hired his former parole agent for more pay than the agent made with the state!

PORTABLE TRANSMITTER-RECEIVER NOW AVAILABLE

General Electric Company has made available a hand-carried portable transmitter-receiver, featuring a tubeless receiver. The receiver is the result of experimental work in advancing the practical application of transistors at higher frequencies. The unit is especially designed for use in the municipal emergency services, in civil defense work and in military applications.

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Edited by **V. A. Leonard,** *Professor of Police Science and Administration, The State College of Washington, Pullman.* Makes available for ready reference the papers delivered by 16 experts before the Ninth Annual Seminar-Convention of the Academy for Scientific Interrogation, held at Hot Springs, Arkansas, August 21-23, 1957. Features new ideas, procedures and methods which will enable the polygraph examiner to improve his skills and proficiency in the use of polygraph techniques. *Pub. Aug. '58, 168 pp. (Police Science Series), $5.75*

Also available Volume I, pub. '57, 112 pp., $3.75

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